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A
DISCOURSE
UPON THE
PLAGUE,
WITH A
Preparatory Account
OF
MALIGNANT FEVERS.

In Two PARTS.

The *First*, Containing, An Explication of
the Nature of those DISEASES.

The *Second*, The Method of CURE.

By Sir RICHARD BLACKMORE, M. D.

The Second Edition.

L O N D O N.

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THE PREFACE.



THE dreadful Plague, that for Two Years has rag'd in a Neighbouring Kingdom, has given the Alarm to the Nations round about it to stand upon their Guard, and endeavour by the most effectual Means in their Power to prevent the spreading Contagion from breaking in upon their respective Countries : And since the Inhabitants of this Island are seiz'd with the same Fears and Apprehensions of Danger, as those of Foreign States and Cities yet uninfected, are using all just Precautions to hinder their being visited by such a sore Calamity, especially in guarding their Coasts with the greatest Strictness, that it may not be brought in upon them either by an Open or Clandestine Trade, I have thought it my Duty

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to communicate to the Publick my Sentiments on this Important Subject, that if it should please Almighty God to afflict this Kingdom by such a destructive Disease, I may impart to my Countrymen what in my Judgment is most effectual for their Relief.

AND I shall publish to the World only, at least chiefly, what Knowledge I have acquir'd upon this Subject by long Observation of the Nature of Diseases, and the Force of Medicines, and therefore I shall not oppress the Reader with numerous Citations from the various Writers of Physick, nor transcribe their different and often inconsistent Notions, nor their endless Train of Medicines and Receipts too uncertain and precarious to be depended on.

*THE Paracelsians, Rosycrusians and Helmontian Chymists, those Mystical Philosophers and Enthusiasts in Physick, to conceal their Notions involve them in odd Metaphors, Allegorical Allusions, uncouth Expressions, and affected Obscurity, and by this Means draw to themselves the Veneration of Ignorant Admirers, and the Contempt of Wise Men: And many other learned and regular Physicians, that write in their own Tongue use so many hard Words and Phrases peculiar to Men of Learning, and the Sons of Art, that they are scarcely intelligible to any. Besides, since a Treatise of this Nature is intended for
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the Service of all, for all are concern'd in it, it should be adapted to the Capacities of all, who can read and understand Things of this Kind deliver'd in clear and well known Expressions. For this Reason, I shall avoid all difficult and uncommon Words and Phrases, proper to the Schools and that are in use only with Philosophers and Physicians, and convey my Thoughts in a plain and easy Manner, for to do otherwise would be to write Physick in Court-hand, and endeavour to inform the People by unintelligible Discourses. But when it happens that the Subject Matter is in its own Nature difficult and superior to vulgar Capacities, I have labour'd to make myself understood by the most familiar, significative and unscholastick Terms, that I may accommodate the Stile to the Apprehension of every Intelligent Reader. But if any find it hard to understand the First Part that treats of The Nature of Malignant Fevers, and the Plague, they may pass it over, and go to the Method of Cure.

I have asserted in this Essay that the distinguishing Properties of the Plague are its Superior Contagion, and destructive Quality, and that the last consists in the greatest Contrariety of Pestilential Vapours or Particles to the Animal Spirits, and the active Principles of the Blood, and that the first is founded in greatest Minuteness, Exaltation and Refinement, of those vapours by which they are
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able to pass thro' the Air from Place to Place with extraordinary Velocity ; and tho' these two Properties arise from the highest putrefactive Power, yet the Idæas of one and the other are very different ; and this I have promis'd to ease the Reader's Conception, if perhaps he shall find any Difficulties in my Explanation of the Nature of Contagion, for tho' there are some Distempers, that are Contagious and not Mortal, and some Mortal that are little or not at all Contagions, yet the ready Conveyance of the Plague by the Air from Place to Place must depend upon the extraordinary Smallness or Subtility of the Pestilential Matter ; for no other Infectious Disease is communicated and convey'd in so swift a Manner, and to such a Distance.





HEALTH consists in a due Proportion, Firmness and Structure of the Bones, a just Mixture and regular Subordination of the active and passive Principles of the Blood, that is, the Oil, the Spirit and the Volatile Salt, if these two are not the same, and the watry and earthly Parts; in a due Seperation of the Humours by the Glands and other Strainers, and in a just Purity, Activity and Plenty of the Animal Spirits, the Instruments of Sense and Motion: And the Breach or Disturbance of this Order in any of the foremention'd Instances, by which the Oeconomy of Nature is interrupted is properly a Distemper or Disease; which is less or greater according to the Degree of such Breach or Disturbance, If there be a considerable Deviation from the just Constitution of the Parts of the Body before describ'd without excessive Heat, it usually produces slow or chronical Distempers, Dropsies, Jaundices, Palsies, &c. But if the sulphurous or fiery Parts break thro' their Restraints and grow too prevalent and licentious by the Admission of some hurtful

ful and repugnant Particles, the Consequence is a Fever, that creates an immoderate Heat, and usually an excessive Thirst. This Heat that arises from the too great Power or Exaltation of the active Principles is not an inherent Quality of those Particles, but is of a Relative Nature, and has its Appellation from the Impression it makes on our Sense of Feelings, whence as Light, Moisture, Cold, &c. it is better understood by naming the Term, than by the most accurate and labour'd Definition. But if this intemperate Heat proceeds only from great Labour or violent Exercise, that drives the Blood with too much Swiftneſs thro' the Veſſels, this not being occasion'd by any opposite Matter receiv'd into the Blood, is temporary and tranſient, and ceases after proper Reſt, and therefore is no Diſeaſe; but when it arises from the Invaſion of noxious Particles, that will not mingle and incorporate with the Blood and Spirits, but by Reaſon of their contrary Nature ſtruggle and ſtrive with the whoſome Parts, that exert themſelves to expell them, till the Conflict raiſes the fiery and active Principles to an immoderate Height, this cauſes a Fever properly ſo call'd,

WHEN the juſt Diſpoſition of the Blood tho' diſorder'd and too much agitated, preſerves the Union of its Parts, which remain unbroken by the noxious Quality of the Matter of the Diſtemper, a Fever of the loweſt Degree

gree and the mildest Nature is produc'd, and in this Case the Enemy being weak and unequal to the Spirit of the Blood which is strong and vigorous, it is easily master'd in the Conflict, and soon expell'd without any great or grievous Symptoms.

THE next step is when the Blood is not only greatly disturb'd and interrupted, but suffers likewise a considerable Disunion of its Parts; and all such Separation of the Integrals of an Animal creates some Degree of Putrefaction, which is nothing else but the Incoherence and Solutions of the Materials, that constitute a mixt Body: And in this Kind of Fever to the excessive Heat and vehement Motion of the Blood are superadded, the more dangerous Symptoms, that arise from Putrefaction. And here in my Opinion begins that Species of ill-condition'd Fevers, call'd Malignant, which is a Term, like many others in Physick, that has with many no determinate Meaning, nor any distinct Idea in the Mind answering to it. I shall therefore use the Word Malignant, as signifying some Degree of Putrefaction or entire Separation of some Parts of the Blood. If but a few Parts are thus divided and dis-engag'd from their Connexion and Dependance upon one another, the Effect is the lowest Kind of putrid Fevers, as arising from the lowest Degree of Corruption. If this Corruption or Separation of the Blood be in a small Degree, the greatest

Part of the Mass remaining sound and well united, the Blood by the Force of Nature and Assistance of Art may be restor'd to its healthfull State; for as a slight and superficial Mortification of the Flesh or Rotteness of the Bones will admit a Cure, so a Putrefaction or Mortification of the Blood in an inferior Degree is consistent with Recovery; for the far greatest Quantity of the spirituous and active Parts of the Mixture, being entire and uninfected, have Vigour enough to conquer and exclude the Adversary, and heal the Breach of its Integrity. But if this Solution of the Blood be great and considerable and many Parts are broken off from their natural Connexion, and become mortified, the Disease grows formidable and dangerous, being attended with a sad Train of violent Symptoms, tormenting Head-ach, disturb'd Reason, great Vomiting, dead Sickness, frequent Stools, restless Agitations, obstinate Wakefulness, and sometimes the reverse of it, a very drowsy and sleepy Disposition, the Pulse being weak and languid, and tho' at first they are often just, yet at length they become irregular and immoderately Swift, with Faintings, Sighings and often laborious Breath; the Tongue at first moist, without great Thirst tho' at length the Tongue often grows black, rough and dry, frequently the Sign of a fatal Issue. Sometimes great Bleedings at the Nose and some-

sometimes by Urine, and sometimes at other Sluices of Nature : For the Structure and Connexion of the Blood being ruin'd in a high Degree, the Parts in this dissolv'd State break thro' all the Passages they can find, and rush thro' all the Strainers that are more loose and open. In this general Corruption, wherein a great Quantity of the Blood is perish'd and the Gangrene (if that Word will be allow'd) spreads thro' the Mass in a prevalent Degree, various Fevers of various Sorts but different only in Name do arise.

Of Miliary Fevers.

First, THE Fever call'd Miliary from the small red Eruptions that resemble Millet Seed : This is the most frequent in this Country of all the Malignant Kind, and therefore I shall discourse a little more largely upon this Subject. The Patient often seems to himself at first only somewhat faint and indispos'd, his Strength and Appetite diminish'd, and his Sleep interrupted and his Dreams disorderly and tumultuous, while he goes abroad and applies to his usual Business, and hopes his Indisposition will soon wear off, not suspecting that he nourishes a Malignant Fever in his Bosom. At length

after about Seven or Eight Days, when he has taken to his Bed by means of copious and profuse Sweats, the Miliary Eruptions before mention'd appear in the Temples, the Neck and Breast, and sometimes spread over the whole Body. If the Quantity be not great, as in the distinct Kind of the *Small-Pox*, they generally presage a happy Event; But if they are very numerous and cover the whole surface of the Skin, then like the *Small-Pox* of the confluent Sort they are often fatal and always dangerous, and they are in this too like that Sort of *Small-Pox*, that, as I have seen, in their ripening they sometimes flow or run into each other. These little Red Eruptions grow by degrees to Maturity, acquire White Heads full of Matter, and then grow dry, and dye away, which Course in the more kindly Sort is generally accomplish'd in about Seven Days; but in the worst Sort, the Time is much farther protracted, and this happens also in the worst Sort of *Small-Pox*; and it is very remarkable, that it sometimes falls out that in this Sort of Fever after one Eruption of a more Malignant Kind has compleated its Course, and the Skin is clear'd of the putrid Crop, yet a Swift, troubled Pulse, great Drought and want of Spirit shall continue, and then the Physician may be assur'd that either Death or another Eruption like the first is at hand to carry off the Matter of the Fever, which the first was unable wholly to perform: And this

this I have seen repeated the Third Time, and even after that the Patient has recover'd, which but rarely happens.

THE great and profuse Sweats, that precede the Miliary Eruption are by no means such as Critically discharge the Putrefaction, that causes the Disease, but they arise from the violent Conflict and Agitation of the Blood, while the Sound and Active Parts exert their force to digest and expell the Matter of the Disease. And therefore they do not relieve oppress'd Nature, but sink and weaken the Spirits by an excessive Evacuation, which however is necessary that the Putrid Parts may be excluded from the Blood by the Miliary Eruptions that follow, in which consists the Critical separation by which Nature is deliver'd and the Blood recovers its Healthful State, as it does by casting out the Matter of the Small-Pox at first complicated and entangled with the Mass of Blood.

SOME Physicians, too fond of the cool Method in the management of Fevers from their Observation of the usefulness of that Conduct in Inflammatory Distempers, such as the Small-Pox, Rheumatism, Pleurisy, Quinsies, and St. Anthony's Fire have injudiciously extended it to the Cure of Malignant Cases, in which a considerable quantity of the Blood is putrify'd or perish'd by the dissolution or separation of the Parts as before describ'd, but they seem not to act under the Guidance
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of Reason, but in a Mechanical way of Practice apply the same Method of Cure to all sorts of Fevers, tho' their Nature be ever so much distinguish'd. But of this more hereafter in its proper Place; and hence it is that some of these Gentlemen will not allow that the Miliary Eruptions are a regular Discharge of the feverish Matter from the Blood; but, say they, they are the Effect of an unskilful Conduct in using Remedies of too hot an Nature, by which the Blood is put into too great a Hurry and Agitation: But this Assertion affronts all Reason and Observation: They may as well affirm that the Small-Pox, Meazles, and scarlet Suffusions, Boils and Blanes would never appear on the Skin, were they not produc'd and excluded by the Administration of too warm and active Remedies. I have often seen those Eruptions break out in great Abundance, where the cool Method has been exactly observ'd, and of this every Practiser may be soon convinc'd if he carefully attends to the Growth and Progress of this Distemper. In this, as in the Diseases abovenam'd, the hurtful Matter admitted into the Blood is by Nature's Determination to be first concocted, and then separated by the Strainers of the Skin where being entangled and not suffer'd to perspire, it produces a Miliary Harvest; and a Physician being but a Servant of Nature ought to follow her Steps, promote her Intentions
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and not to turn her from her Path and oppose her Operations.

WHEN a Patient has long struggled with a Fever accompanied with Putrefaction, and after Twelve Days no Miliary Breakings out are observ'd, it is usual that small watry Bladders, from their Transparency call'd *Christaline*, appear in the Temples, Neck and Breast, which often gradually ripen and become full of Matter; these perform the Office of the former Eruptions by freeing the Blood of the noxious Ferment, that disturbs it, but not so safely and effectually.

IT is to be observ'd that there is a Fever, which I call Hypochondriacal or Hysterick, tho' it be not rang'd in the Classes of that Disease by any Authors, as far as I know, that by its Similitude to the Malignant Kind, often imposes on Physicians and induces them to believe that it is of that Sort. And this is the only true Fever of the Spirits, and which I have often seen. It imitates closely the Malignant Sort in the greatest Parts of its Symptoms, but it differs in this, that the Exercise of their Reason is not interrupted or suspended during its whole Course, which runs out sometimes to more than Twenty Days, whereas most commonly the Head is much if not chiefly affected, and the Faculties of Reason and Memory are greatly disturb'd and broken in Malignant Fevers. Another Distinction is, that
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in the first Sort the Patient is not troubled with Looseness or Thrush, nor do there ever appear in the Skin any Miliary Eruptions or Spots of any sort whatsoever. But on the contrary in the last Kind some putrified Matter is always excluded from the Blood, and determin'd to the Skin or intended to be so, if sufficient Force remains in the Blood to effect it. It is true, that in simple Fevers, where no Parts of the Blood are corrupted, there needs no Critical Separation but by Sweats and Transpiration, which cool the feverish Flame, carry off the offensive Matter from the Blood, and restore Nature to its regular Constitution; but when many Parts of the Blood are actually mortified, how can Nature ordinarily be restor'd to a healthfull State without expelling them to the Skin? Can a Gangrene in the Solid Parts be heal'd, till the Sound Flesh is freed from the Mortify'd Fibres? No more can the Mass of Blood be cur'd till it is clear'd and purg'd from its putrid and perish'd Portions, which usually must be done by excluding them from its Bosom by friendly Sweats, or lodging them in the Surface of the Body; I said usually, because sometimes this Putrid Matter may be discharg'd by the Glands or Strainers of the Gutts, tho' that does not often happen, for frequently the Looseness, that at the latter End attends Malignant Fevers, if the Patient recovers, is taken up by a Thrush or sore Mouth; and hence it appears that
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the Hypochondriacal Fever mention'd before, has not the Essential properties of the Malignant, and therefore does not arise from Putrefaction, tho' it is certain, that the Malignant Kind have at their Beginning such a Conformity of Symptoms and Appearances to Hypochondriacal Passions, which I have describ'd and accounted for in my *Essay on the Spleen*, where I have declar'd that Bowel from the Guilt charg'd upon it by a general Mistake, that it is difficult to discern whether the Patient be attack'd by a putrid Fever or an Hysterick Disorder or Perturbation of the Spirits : For Instance, Chillness, Shiverings and rigorous great Inquietude, Vomitings, Dejection of Appetite, Anxiety, Sickness and immoderate Sweats, Wakefulness, a low dispirited Pulse, Faintness and great Diminution of Strength are Symptoms common to both, and therefore for several Days a Malignant Fever has so near a Resemblance to one, that is only Hysterick, that many Physicians and Standers by, I am apt to believe, mistake the first for the last, and look upon a great and dangerous Disease to be only the Spleen or a Fit of Vapors to the great Hazard of the Patient.

I have shewn that a Malignant Fever arises from some Degree of Putrefaction or Mortification in the integral Parts of the Blood, and the Causes of that Putrefaction

tion shall be accounted for in their proper Place: Now it must be observ'd that this Kind of Fever is diversified and call'd by different Names as it proceeds from a less or greater Degree of such Putrefaction, for Fevers do not differ in Nature and Essence but in Degree, and as in Morals such a Superiority constitutes a new Species. These different Species are the Putred, the Miliary, the Pêtechial, that is, the Fever accompanied with small red or scarlet Spots, and that attended with blue, purple and blackish Ones dispers'd in the Skin, and sometimes, when more Malignant, with Mortifications in several Parts of the Body, and these arising from greater Putrefaction are often contagious and destructive. I have discours'd only of the Nature of the Miliary Fevers for that sufficiently serves the Design of this Writing, and there is no need of entering into a practical Discussion of the Rest.

WHEN the Mass of Blood is generally corrupted and in a State of Mortification, the Fever acquires more Force and grows eminently Mortal and Contagious, by which Improvement it becomes the Plague, and since Malignant Fevers have all Properties and Symptoms common with the Plague, they must be allow'd to be of the same Species, for it can never be granted that the Addition of more mortal and infectious
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can vary their Nature: Some Malignant Fevers are contagious tho' in a lower Degree, are they therefore varied in Specie and rang'd in another Class from the rest of that Sort? It is therefore repugnant to Reason and good Sense to diversify these two and assign them different Ranks; but if any Gentlemen will still adhere to this unreasonable Opinion, let them condescend to settle the essential Boundaries and distinguishing Marks between them, for I am not able to discern them.

To illustrate this Matter I will a little consider the Nature and Properties of the Ancient Leprosy that afflicted the *Israelites*, which seem'd peculiar to that People, and is now imitated by those Diseases which are call'd *Elephantiasis*, or Bastard Leprosy, a scurfy Itching and spreading Tetter or a scal'd Head, these are indeed of the same Nature and Kind with the Ancient Leprosy as Malignant Fevers are with the Plague, and differ but in an inferior Degree of Corruption, and its Freedom from Contagion. So that as the Pestilence is the highest Degree of putrid Fevers, so the Leprosy of the *Hebrews* is the highest of the Kind distinguish'd from other Diseases, by white scaly spreading Scabs and corroding scurfy Tettters, and this is further evident by the different Degrees of this kind of Disease mention'd in the Books of *Moses*, for which the

Marks of it appear'd in Walls of the Houses as the Tokens of the Plague, sometimes do, and, as I am inform'd they did in the last that visited the City of *London*: The Inhabitants were order'd to scrape the Places that seem'd infected by which the House sometimes became free and clean; but if the Marks broke out again, the House was to be pronounc'd unclean, and therefore to be demolish'd and all the Materials to be destroy'd by Fire, where it is evident, that Marks that were scrap'd off, and did not return, were of a milder Nature, and had not yet acquir'd a Contagious Quality, which is the distinguishing Character of the Leprosy as it is of the Plague.

THIS is the terrible Enemy of Mankind, that sends its Arrows abroad by Day, and walks all stain'd with Slaughter by Night, that turns the Vital into noxious Air, poisons the Blood and kills us by our own Breath; that goes forth thro' a Land collected in its Strength and arm'd with Vengeance scatters Destruction in its dreadful March. Before it are beautiful Gardens, crowded Habitations and populous Cities, behind it unfruitful Emptiness and howling Desolation. It is strengthen'd and fed by the Famine which it makes, gathers Force in its Progress and makes the Dead destroy the Living. It advances in Triumph from Place to Place, despises the Fences

Fences and leaps over the Lines rais'd to restrain it : Before it the Guards and Armies of mighty Princes, are as dead Men, and Physicians are no Protection either to the Sick or to themselves. When the ALMIGHTY to punish a guilty Nation empties his Viols of Wrath and pours forth these Lees of Vengeance upon the Air, He glutts his Sword with Death, and makes his Arrows drunk with Blood.

Of the Causes of MALIGNANT FEVERS *and the* PLAGUE.

THE Causes of these Distempers are either Internal or External, the Internal or Congenite Causes may be interwoven and complicated with the material Principles of the Body at its first Formation, as the Seeds of many Distempers are, for Instance those of Consumptions, King's-Evil, Lunacies and Small-Pox, for such is our State of Mortality, that when we receive the Principles of Life, we receive at the same Time those of Death, we are conceiv'd and shapen in Natural, as well as in Moral Impurity, and born into the World in a dying Condition; we may therefore conceive with Ease that sometimes the Principles of Malignant Fevers
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are combin'd and closely united with the Original Parts of the Blood, and are afterwards awaken'd, let loose and freed from their Imprisonment, by the Help of irregular Agitations and Conflicts, that arise in the Blood, either from a sudden closing of the Pores of the Skin, or from luxurious Eating or Excess of Wine, or strong Liquors, that by their crude or undigested Juices obstruct the Strainers of the Body, interrupt the Circulation of the Blood, and hinder the Separation of the Humours requir'd for the Depuration of it, and preserving it in a healthful State: Hence various Impurities are retain'd in the Mass and prove detrimental to its Constitution, where continuing unexpell'd they contract an acrimonious, diseas'y Quality, which agitates and disturbs the Blood, and by that Means awakens and sets at Liberty the Primitive innate Seeds before mention'd, by which Means Malignant Fevers are sometimes produc'd.

THE External Causes of these Distempers is sometimes impure and noxious Air, that being drawn into the Lungs by Inspiration, conveys to the Blood the poisonous Exhalations and putred Vapours contain'd in its Bosom, which mingling with it in Circulation infect the whole Mass: Thus the Effluvia or Steams arising from stagnant Ponds, marshy and uncultivated Soil, which a Hot Sun con-

constantly lies upon, as for Instance, Thirty Miles from *Rome* in the Summer Season, corrupt the Air and make it productive of fatal Fevers. Another External Cause is unwholsome Meats and Drinks such as tainted and perishing Flesh, stinking Garbage, unripe Fruits and hurtful Herbs, which in Times of Scarcity and Dearth, the starving People greedily devour to satisfy their craving Hunger. The last External Cause is the Contagions Particles convey'd by the Air in to the Bodys of Men by infected Goods or Garments. And these are the usual Ways of propagating Malignant Fevers and the Plague, tho' the last, seldom happen in comparison with the first. We have maintain'd Trade and Commerce by Navigation a long Series of Years with *Turky* and *Egypt*, and yet have not for more than Fifty Years past imported with their Goods this destructive Contagion into our Country, tho' their Towns are never or rarely, especially in *Grand Cairo*, free from the Pestilence; and weighty Reasons may be assign'd that will make it doubtful whether the Plague, that now rages in *France* came to Land conceal'd in Goods brought from *Sidon*; for I am very Credibly inform'd that the Pestilence under the Name of a Malignant Infectious Fever was begun in *Marseilles* near two Months before it was given out that it was brought from the *Levant*, at least it may be justly acknowledg'd that the Force of the Contagion

tagion was wonderfully improv'd and augmented, by its Reception into a Place where the Inhabitants by a Malignant Distemper were so much prepared and dispos'd to entertain and spread it, which might not have been able to have made such Impression and produc'd such Mischief, had not the Bodies of the Poor ill nourish'd People been so much dispos'd to receive the Infection: We see that while the Plague is rife and raging many of those escape its Fury, who are robust and vigorous, endow'd with strong and active Spirits, fed with Plenty of wholesome Food, and strengthen'd and animated with generous Wine, for thus the active Parts of the Blood and those that inhabit the Nerves, resist and expel the invading Poison, or if it forces itself a little way into the Blood, they obstruct its Progress, drive it back and exclude it with Success. Men are dispos'd to admit the Pestilential Venome by a Collection of noxious Humours and corruptible Juices mingled with the sound, which proceed from too little or unwholesome Food; and in this hungerstarv'd Condition as the Limbs and Bowels defrauded of due Nourishment grow Weak and Feeble, for the Spirits, that should withstand the Enemy and defend Life, being languid and destitute of Force and Vigour are unable to perform their Native Functions: Such Bodies as these surrender at the first Assault of the furious Aggressor, while stout and strong Constitution,

tions well supply'd with proper Nourishment make a far better Defence, hold out longer, and at length often dislodge the Assailant : Hence it is that in great Scarcity when Men are compell'd to Eat unwholsome and corrupt Meats, Pestilential Infection is most prevalent, for Famine is the Cause of Pestilence, as Pestilence in its Turn produces Famine, which therefore are mutual Causes and Effusion of one another.

THOSE Gentlemen who think that the Plague is always produc'd by Contagion, convey'd from one Country to another, by the Importation of infected Wares and Merchandize, and afterwards by Goods and Garments, or by the Conveyance of the Air carry'd from Town to Town and House to House should reflect that then a Train of successive Infections must proceed in *infinitum* ; since there can be no stop unless we come to one Person, who first bred that Poison in his own Bowels, and afterwards convey'd it to others. Suppose *France* receiv'd the Plague from *Sidon*, *Sidon* from *Damascus*, *Damascus* from *Antioch*, and so on, must not the Progress be unlimited, unless some Persons are assign'd from whom this Disease deriv'd its Original ; and after if any Plague has spent its Fury by the Havock it has made

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and sinks by the Interposition of Winter Cold, or ceases for want of Fuel to feed its destructive Flame; If after, I say, the Interval of several Years it is reviv'd, suppose in *Poland*, or the Inland Towns of *Germany*, &c. whether no Ships come to bring the Contagion in Goods and Merchandize, is not its Resurrection to be accounted for from inherent Causes assisted by the External before describ'd? I believe that the Plague is often occasion'd by Infection from other Countries convey'd by Navigation; but I believe likewise, as I have said, that it far more frequently owes its Generation to internal Vicious Humors, or Pestilential Air, and especially when the Northern Regions of *Europe*, are visited with this dreadful Calamity it is most frequently to be ascrib'd to Famine that follows the Desolation made by the Sword, or to a Dearth and Scarcity of Provisions occasion'd by natural Causes, and rarely to any fatal Contagion communicated from imported Wares; and if Famine and Scarcity will produce Pestilence without any Foreign Contagious Assistance, then it is evident that this dreadful Distemper does not always flow from Infection, and indeed if it always arose from Infection then has there never been any new Plague in the World, but the same continu'd by uninterrupted Succession

sion and an endless Contagious Train, and yet that Plague that first begun must be allow'd to arise without Infection, otherwise as I urg'd before there must be allow'd an eternal and boundless Generation of Plagues, which is the greatest Absurdity.

I have been credibly inform'd, that when *Southern* Winds blow over the Burning Sands in *Africa*, a Plague very often immediately follows at *Tunis*, which obliges the better Sort of Inhabitants to withdraw for their Safety to old *Carthage*, which evidently proves that this fatal Disease may be produc'd at Home without the Importation of infected Wares or Garments. Besides it should be considered that the Murrain among Cattle of different Kinds is a Plague as contagious and destructive as the Pestilence among Men. Now 'tis evident that the Murrain is bred at Home by unwholsome Herbs, bad Water, Malignant Air, &c. and is not deriv'd from Commerce maintain'd by Navigation with Foreign Countries; and the Parity of Reason will extend to the Plague, that affects Humane Bodies, and then the Conclusion will be, that this great Disease is generally produc'd by Domestic Causes.

I have hitherto discours'd of the Plague as it arises from the Concurrence and Efficacy of second Causes; but sometimes, and perhaps more frequently than we think, this dreadful Calamity is inflicted immediately by the Hand of GOD, or at his Command by the Ministry of his invisible Angels: The wise and righteous Moderator of the World often interposes his Power in a miraculous Manner for the Destruction of a wicked, as well as for the Protection and Deliverance of a good People. When He intends to manifest his Being, Providence and just Government over Mankind, to chastise extraordinary and enormous Provocations; He pours down from Heaven Divine Vengeance upon a Nation harden'd in Impiety and obstinate in Wickedness. In such Cases, besides other Kinds of Judgments, He bends his Bow, and sends forth his poisonous Arrows thro' the Air, that smite the Inhabitants of the Earth, and make their Towns and Country desolate; with uncontroul'd Fury they invade their fenc'd Cities and strongest Bulwarks, and without Distinction of Persons, Sex or Age involve the People in one common Destruction. He draws forth his restless Host of Pestilential Atoms, which defeat and confound the Pride and Power of the greatest Princes, and with invisible Weapons

pons overthrows the Armies of the Mighty. Thus *Pharaoh* for his Pride, Cruelty, and merciless Oppression of the *Hebrews*, was terribly rebuk'd by the destroying Angel, the Executor of Divine Wrath, who by a fatal and miraculous Pestilence slew all the First-born of *Egypt* in one Night. Thus were the *Israelites* several Times punish'd for their Disobedience in the Wilderness; thus the vast Army of *Sennacherib* was assaulted and slain by the like Means and by a like invisible Commissioner of Heaven; and thus the Sin of *David* was chastis'd by a Pestilence inflicted at GOD's Command, by the Angel that stood in the Air over *Jerusalem*. And when Physicians and Naturalists have puzzled their Reason in searching after the Origine of any particular Plague, and are unable to find an evident Cause of its Rise, it will be an Argument of their Wisdom, Penetration and Piety to ascribe it to the Finger of GOD.

*What Parts of the Body are
first affected by* MALIGNANT
FEVERS *and the* PLAGUE.

IT may now be demanded what Parts receive the first Impression either by the
inbred

inbred Seeds of Malignant Fevers, and the Plague disengag'd and set free from their complications with the Blood in the Manner before explain'd, or by External Causes, that is, the Inspiration of Pestilential Air, or by Contagious Matter mingling with the Saliva or Juices of the Mouth, in chewing noxious and putred Meats, that being afterwards convey'd to the Stomach prove destructive Poison instead of wholesome Nourishment, or infected Garments put on a sound Body whence the venomous Particles insinuate themselves by the Pores of the Skin. To give an Answer to such Inquires, I declare, that in my Judgment the first sufferers in this Assault are the Animal Spirits that are the Inhabitants of the Nerves, and the Instruments of Sensation and Motion.

IT appears evident by undeniable Observation, that in continued and constant Fevers, as well as those that are discontinu'd and intermitting, that at the first onset of the Disease the Patient complains of Chillness, Shiverings and Rigours, Pain and Lightness of Head, sickness of the Stomach, and frequently is troubled with Vomitings, which in the Intermittent Kind are after a Hot Fit Reliev'd by considerable Sweats, all which Symptoms after the Interval of a Day or Two, return with fresh Fu-

ry, and Repeat their Course in the same Order. Now it is very plain that all these Symptoms are Passions of the Nerves and Spirits, and therefore they are the first sufferers, and the Blood is but little affected till the Feverish Matter is Translated thither from the Nerves, and then it is greatly disturb'd and grows excessively Hot. Malignant Fevers, and the Chief of them the Plague are accompany'd with Disorders, acute Pains or Heaviness of the Head, disturbance of the Imagination, sickness of the Stomach, Nauseousness, convulsive Vomitings, Twiches and Springing of the Tendons, Faintings, Dejection of Spirit, loss of Strength, and oft with Thick Laborious Breathing: Now these Symptoms plainly proceed from the Inability of the Animal Spirits to perform their Natural Functions; and the following symptoms, immoderate Heat and Thirst, arise from a great Part of the Diseasy Matter communicated from the Blood, and from the Strife and Labour of the active Parts, to free themselves and throw off the Foreign Matter contrary to its Nature and Healthful Constitution. But when the Plague kills in a few Hours or in a Moment, and by one Deadly stroke Extinguishes and Destroys the Spirits, and thereby subverts entirely the Animal Oeconomy of which Death, that consists in a Total Cessation of Motion,

tion, is the necessary Consequence, this is an uncontrollable Proof that the Spirits and Nerves receive the first Violence and Impression of the Malignant Enemy.

The Nature of the Efficient Causes of PLAGUE.

IT is certain, that in General the Pesti-
lential Particles of Matter, that by disu-
niting and separating the Blood, produce
Putrefaction, must be perfectly contrary
and opposite to the Nature and Constitu-
tion of the Spirits, of whom they are so
destructive; but to settle the Notion of
the Essential Properties of them is a more
difficult Undertaking. The Animal Spirits,
which are the most Active, Pure and
exalted Parts strain'd from the Blood by
the Mediation of the Brain, and thence
dispers'd through the System of the Nerves
for Sense and Motion, are Constituted,
as it is Highly probable, of a Com-
bination of all the Active Parts of the
Blood, the Oyl or Balsam, the Spirit and
Volatile Salt, these passing through the fine
Meshes

Mefhes and ftraight Paſſages of the Brain are there refin'd, rectify'd and exalted to ſo high a Degree, as enables them to perform the Offices of Nature requir'd of them; the Principles, whoſe Properties are moſt contrary and oppoſite to thoſe I have mention'd, ſeem to be foul Sulphur, Nitre and Vitriol incorporated, and ſo exalted and ſublim'd, that they acquire the higheſt degree of Activity; for by abundant Experience it is ſeen, that Fumes and Exhalations rais'd by Fire from theſe Minerals are moſt apt to ſuffocate and extinguish the Spirits, which thoſe Perſons are conſcious of, who put their Noſtrils too cloſe to the Steams of burning Sulphur, or enter a narrow Room fill'd with ſuch Exhalations; and tho' Nitre while it floats in the Air adminiſters to the breathing Lungs the Food of Life; yet when its Parts are ſever'd and diſengag'd by Fire, the Fumes that ariſe from it, are deſtructive of the animal Spirits, as thoſe will allow, that have ſtood too near the hot Veſſel at its opening, which contains the diſtill'd Spirit of this Mineral, as well as thoſe, who have obſerv'd the viſible Fumes, that ariſe from the Earth in the Grotto *de'l Cane*, near the Lake *Avernus* in *Italy*, which kills the Dogs whoſe Noſes are put into them, immediately; and are no leſs noxious to Men, as one that I ſaw, who raſhly curious of the Tryal bow'd down his Head towards the riſing Vapour, and tho' he held it at a Diſtance from the viſible Fumes, paid dear for the Experiment, and ran the

Risk of Suffocation. It is to be observ'd likewise, that Delves are sometimes struck Dead in an Instant by the Eruption of some fatal Steam or Breath, whose destructive Quality seems to arise from foul Sulphur and Nitre and Vitriol combin'd in one deadly Composition, which being noxious in the highest Degree kills in a Moment, as the Plague sometimes is observ'd to do, and therefore 'tis highly probable that their Pestilential Nature is deriv'd from the same Causes.

The Opinion I have given is illustrated and confirmed by this Observation, that Plagues are often bred in the Bowels of the Earth, while the Reeks and Fumes of various Kinds arising from the Strife and Conflicts of fermenting Minerals and unripe Metals, and agitated by Fires that rage in the Vaults underground, having fill'd their Caverns, and being set on Fire by their own struggle, or some neighbouring Flames, and wanting Room, like kindled Gunpowder, to diffuse it self, burst their Prisons by furious Earthquakes, and break thro' the Chasms and Disruptions of the Ground in violent and contagious Tempests: And these fill the Regions of the Air with crude, pestilential Seeds and Subterranean Poison, which malignant Eructations gathering to themselves the hurtful Particles which they meet with in their Way, gain greater Force, and being drawn into the Lungs by the Breath, infect the Vitals, and execute their

terrible Tragedy. Now it is evident, that these fatal Vapours can be nothing else but the Crude Steams of Nitre, Vitriol and Sulphur blended together; with which the Caverns of the Earth so much abound, and the Exhalations from other Minerals and Metals of the like noxious Quality, embodied and strictly combin'd with them.

Some Authors have declar'd their Judgment, that a great Number of Worms, or small living Creatures, are the efficient Cause of the Pestilence. They were led into this Opinion by observing either with the Naked Eye, or with the Assistance of good Glasses, abundance of those little Animals in malignant Tumours, which they open'd under the Ears, in the Armpits and in the Groine; and this Observation is true; for Historians have related, that various Plagues in various Countries have produc'd innumerable Worms in the putrified Parts of the Body, and this has been taken notice of as an Effect of the terrible Pestilence that now rages with unparallel'd Violence in a neighbouring Kingdom,

This Symptom or Appearance may be thus accounted for: There are some living Creatures, of so small a size that raises Astonishment; Creatures, tho' endow'd with Life, yet invisible; and these likewise differ in Degree from each other, in the Scale of Minuteness. It is observed, that the Pepper Worm produced by infusing that

Spice in Vinegar, and discern'd by the Help of a good Magnifying Glass, is by just Calculation reckon'd to be a thousand Times less than any Bulk that is visible by the naked Eye. In respect then of these Worms, the smallest of the visible and the largest of the invisible must be look'd on as Gyants of a vast enormous Size, compar'd with the others before mention'd; and if this Contemplation is pursu'd, it will easily be granted, that the small invisible Seeds of Worms may find a Lodging capacious enough to hold and hide them in the smallest Parts of the Body of Man, where they lie dormant and undisturb'd till by the Putrefactive Heat of the Blood or corrupted Members they are awaken'd, animated and unfolded, and at length excluded from their little Cells: And this will account for the Generation of Worms in all Cases of corrupted and rotten Bodies, for such Productions attend Putrefaction in all Animals and Vegetables; for when the Vital Union of the Parts is dissolv'd by such an entire Disruption and Comminution of them, the little Worms that lay involv'd and concealed in them are let loose to feed upon the putrid Places of their Birth.

By what has been said, it will plainly appear, that Worms are by no means the Cause, but the Effect of Pestilential Putrefaction; it is indeed a Demonstration of the highest State of Corruption and Rotten-

Rottenness, but then it follows, and not preceeds that Corruption, as has been at large explain'd.

Of CONTAGION.

THE peculiar Properties that distinguish the Plague from other malignant Fevers, of which this is the Principal, are its superior Contagion and more destructive Influence: The greater Contagion that accompanies this fatal Calamity proceeds from a much higher Degree of Solution of the Blood and Humours than that in other Fevers; and this grows gradually higher and higher, till the whole Mass is corrupted, and then the Structure of the Blood is by the Putrefactive Ferment so far laid waste and dissolv'd, that there is no Frame, no Order, no Coherence or Continuity of the Materials remaining, while the Parts are no more than contiguous to one another, abrupt, discontinued, and huddled together in the greatest Confusion. And when by the utmost Division and Disruption they are reduc'd to the minutest Size, then the Putrefaction being Universal, most intense and exalted, produces strong Contagion, which is greater or less according to the Measure of Corruption in the Blood. When the Effluvia or invisible malignant Reeks flow from an infected Body greatly corrupted, the poisonous Parti-

Particles being improv'd and rais'd to the
 greatest height, are endow'd with such Ve-
 locity, Activity, and Penetration, that they
 flie with Ease thro' the Air, maintain their
 fatal Influence in despite of all Opposition,
 and convey their Infection from House to
 House, and from Town to Town, lay deso-
 late the Country, and depopulate great
 Cities. This high Venom advances with
 resistless Fury, and sweeps away the Inha-
 bitants of the Land, like a swelling Inun-
 dation: It fills all Places with Slaughter,
 triumphs in Destruction, and is so far from
 being enfeebled while it is ventilated by
 the Winds, and diffus'd through the Air,
 that it acquires more Strength by convert-
 ing into its own Nature the Exhalations
 and Vapours that it meets with in its Way;
 and by this Means, like a spreading Confla-
 gration, it gains greater Force as it goes
 on, and grows more contagious. Some
 Plagues, not in the highest State of Corru-
 ption, confine themselves to one City or
 District, spend their Fury and infectious In-
 fluence in a short Compass of Time, as that
 which last afflicted this Nation was restrain'd
 to its capital City, and exhausted all its
 contagious Force in less Space than a Year;
 while others, like that which now prevails
 in a neighbouring Kingdom, that consists
 of a much stronger, a more exalted and
 active Poyson, not only rage in the hotter
 Seasons of the Year, but notwithstanding the
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the Cold and Frosts of Winter, that condense the Pores of the Air, and put a stand to, or extinguish a weaker Pestilence, encamp in the Air, repeat their Excursions, and continue to ravage the Country during the most rigorous Season : and though their Malignity may be often check'd, and in a measure abated by it, yet at the return of the Summer, it recovers its Vigour, and gathering new Forces, marches through the Land with its former uncontroll'd Fury : And thus this dreadful Calamity continues sometimes several Years, and successfully invades many Countries and large Continents.

It is remarkable, that contagious Particles may lodge in Garments, Raggs, and pieces of Stuffs ; in Girdles of Leather, &c. if they are plac'd in secret Places, from which the Air is excluded ; and if expos'd to the Air many Years afterwards, will exert their Contagion, and revive the Plague.

The more destructive Nature and high degree of Mortality, another Property of this dreadful Disease, by which it differs from other Fevers, has been explain'd and set forth in the former parts of this Dissertation, where this Quality is likewise ascrib'd to the highest state of Putrefaction ; and there is no need here to enter upon a particular Account of it. It should be here observ'd, that sometimes inflammatory Fevers, as well as malignant, from extraordinary Cor-

Corruption in the Blood and Humours separated from it by their proper Strainers, acquire a contagious and deadly Nature, like that of the milder sorts of the Plague; and when they have the peculiar Marks of that great Distemper, they may justly go by its Name, and be styled pestilential, tho' Custom has indeed confin'd the Name of the Plague to the highest and worst of the malignant Kind. Many Instances of this happen in the Small-pox and Measles, such (so we were told) as in the latter end of the late *French* King's Reign, took off so many of the Royal Family, and other great Persons of the Court; for when such Distempers arise from great Putrefaction, they likewise become very mortal, and in a degree infectious.

But it is not enough to account for the Nature of pestilential Contagion, which is nothing else but the Conveyance and Communication of it from the Sick to the Sound, by the Means and Ways beforementioned, unless the Manner how the Infection is propagated be set in a clearer Light: Now this will be illustrated and explain'd by observing how a great Fire begun in a Town, gradually increases and gathers Strength, till it rises to a general Conflagration. At first only a small Spark, or the Flame of a Candle, by kindling a little Portion of combustible Matter, that is dispos'd to receive its contagious Force, dissolves their loose

Stru-

Structure, and sets at Liberty the fiery Particles there conceal'd and restrain'd, and then associating these fiery Parts, and growing stronger by united Force, it proceeds to kindle gradually the adjacent Materials apt to entertain it, and setting free the like Particles from their slight and feeble Bonds by such new Accessions, it still acquires greater Power, till by degrees it becomes resistless, and not only consumes that Dwelling, but in the same manner advances from House to House, till the whole Town is laid in Ashes. In like manner the poisonous Exhalations productive of the Plague are few in Number when they first infect the Air, and assault but few Persons ; but then meeting in their Way a great quantity of noxious Vapours, dispos'd and prepar'd for Putrefaction, by their superiour Force they assimilate and change them into their own Nature ; which Vapours being unwholesome, and almost putrid before, are easily rais'd to a malignant State ; and now the first Cause of the Plague being increas'd and grown Stronger by such Assistance, as well as reinforced and recruited with the Pestilential Effluvia or Exhalations flowing from the Putrefaction, as well of Infected, as Dead Bodies, the Contagion becomes prevalent, and goes on by Degrees from Town to Town, and propagates its fatal Influence thro' the whole Region round about it. And for this Reason, where the Air is more

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unhealthful, being fill'd with hurtful and impure Vapours, the Inhabitants are most obnoxious to the Plague, for those Vapours will soon become putrid, and may be quickly heighten'd into the Malignant Nature of the Pestilence; or if the Plague is brought in from foreign Countries, they will soon revolt and go over to the Enemy.

And this is confirm'd by the following Observation: Port Towns, and they that lie upon the Sea Coasts, where the Ouze, Mud and rotting Reeds and Flags being warm'd and fermented by the Active Influence of a hot Sun, send up from time to time into the Air crude Vapours and Exhalations, which being there improv'd and rais'd to a higher State by a foultry and scorching Heat, contract a Malignant Quality, and may themselves produce a Plague, or be always ready to joyn and assist a foreign Invasion. This is found true in the Air of *Scanderoon*, and many other Port Towns; and is no less observable in the Country lying upon the *Nile*, where, upon the Ebbing of that River, the Ouze and Mud left behind and heated by the burning Sun, and so far animated, that they produce numberless Insects, and sometimes Mice and other Vermin, convey into the Air, as well from themselves as from great Quantities of putrefied Insects, such unwholesome Reeks and corrupt

rupt Steams, that not only pollute the Air, but make it become Pestilential; and hence it comes to pass that *Egypt* is so obnoxious to the Plague, that some Places of it are seldom entirely free from its Contagion; and this may be the Reason of the Plague's beginning at *Marseilles*, which being a Port, is liable to the same Disadvantages as others, and they are yet more dispos'd to the Breeding or Receiving of it, by the Impurities and Filth that accompany the Gallies, and the Slaves that labour in them, which fill the Air with Stench and offensive Smells, easily perceiv'd by those that pass along the Shore adjoyning. These noxious Exhalations approaching near to Putrefaction, may well be suppos'd to be capable, at some Seasons, when extraordinary Accidents intervene, of generating, as I have said, the Plague of themselves, or of contributing much to the Propagation of imported Contagion, especially if the Bodies of the meaner Sort of Inhabitants are impoverish'd by Scarcity of Provisions, or dispos'd by ill Humours from unwholesome Foods to receive the Poison.

It is very remarkable, that this terrible Calamity began in the same Town where Multitudes of Illustrious Confessours, who from a generous and truly Christian Fortitude refus'd to renounce the Prote-

stant Catholick Religion, being condemn'd to the Gallies, toil'd in Fetters at the Slavish Oar ; and where many of them ended their Days, and bore a Glorious Testimony to the Orthodox Faith.

SECTION II.

Of the Method of Cure.

I Have hitherto discours'd of the Nature, the peculiar Properties and Causes of the Plague ; and now I come to lay down the method of Cure: Since then, as I have plainly demonstrated, the Plague is of the same Nature and Kind with Malignant Fevers, and differs from them only as it is more Fatal and Contagious, the Method and Medicines, which are most Effectual for the Cure of such Fevers, will likewise be most useful for the Cure of the Pestilence. I will therefore begin with that, which, in my Judgment, form'd upon Observation, and long Experience, is most prevalent in the various sorts of Fevers, accompanied with Putrefaction ; and this will let us into the proper way of relieving the Plague, which is attended with the most dangerous Symptoms. It is the property of an able Physician to distinguish between Incurable and Curable Disorders of the same Species, such a Practitioner

Cæſar knows, that in the firſt Caſe, only palliating Remedies can with Reaſon be preſcrib'd, not with a Deſign to recover, but to mitigate Symptoms, and procure a more eaſy Death: And when he applies to the laſt, he will employ only thoſe Medicines, which by repeated Tryals and ſufficient Experience he is aſſur'd are effectual, or at leaſt in ſome Meaſure uſeful for gaining the End, for which he preſcribes; and therefore he will chuſe the moſt ſimple Remedies, as being more certain of their Operation, and avoid a pompous Apparatus, and elaborate Compoſitions: For tho' he ſhould be well acquainted with the Nature of each ſingle Drug, yet when great Numbers are complicated in one Maſs, he cannot diſcern how far, by ſuch a Mixture, they ſhall affect and change each other's Qualities. It is true that *Venice Treacle*, *Metridate*, *Diaſcordium*, and Sr. *Walter Raleigh's* Confection, are Combinations of a Multitude of Simples; but the uſefulneſs of theſe having been confirm'd by long Experience, they ought ſtill to be retain'd and employ'd, tho' it is very probable, that ſuch their uſefulneſs conſiſts in but very few of their Ingredients; and as ſimple, or the leaſt compounded Remedies, ought generally to be inſiſted on; ſo an experienc'd and judicious Phyſician is appriz'd, that the Number of theſe is more narrow
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and contracted than many Practifers believe : He will therefore reject a Multitude of Medicines, and forms of Physick, which are Idle and Insignificant, and are Reputable only by being recommended by Ignorant or unfaithful Guides, who would keep up the Veneration and Dignity of their Profession, by rendring it Mysterious, and make themselves considerable by an empty Ostentation of great Reading and unprofitable Notions. Such Authours darken and encumber their Writing with endless Varieties of Prescriptions, and bewilder their Disciples in an intricate and immense Wood of Medicines, for the most part ineffectual and Impertinent, and teach them to ingage their Patients in a long and tedious Course of Nauseous Remedies, almost as intolerable as the Distemper it self. I shall avoid these Errours, and express my Sentiments in a plain and easy Manner, accommodated to all that can read Books ; and shall direct none but simple Medicines, or such as are Compounded of few, but the most effectual Ingredients : Neither shall I Transcribe abundance of Receipts from Authours, that have treated of Fevers and the Plague, but set down such a Method, and such Remedies, as I have in long Practice found most Successful.

The Authours that treat of Fevers, range that Kind, which they call putrid,
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in a Class by it self, accounting it a distinct sort of Species from the Malignant ; but choosing to follow the guidance of Reason, before the dictates of Authority, I must declare, that in my Judgment they are the same, and only different in Degree ; a putrid Fever is accompanied with some measure of Putrefaction, as appears by its very Name ; for if such Cases are not accompanied with Putrefaction, whence has that Fever its Appellation ? And if this be so, then is it evident, that since Malignity always proceeds from Putrefaction, that all putrid Fevers are Malignant, and all Malignant are Putrid. I have before explain'd what I mean by that term Malignant, and have given the just Idea of it, to make it Intelligible. I shall not here repeat it, but for brevity's sake, shall often use the Word in the Sense I have already laid down. I shall therefore range putrid Fevers in the lowest Order of the Malignant Kind.

The next degree above this, is of those that after some Days are attended with Miliary Eruptions, call'd so because they resemble Millet Seeds, which I reckon among curable Distempers ; not because all are recover'd even by the best Skill, but because many yield to proper Medicines, without the Assistance of which they would have prov'd Mortal. Tho' many Patients fall under the Wisest Application of Remedies,

medies, and the Physician is not to be condemn'd for killing all that he cannot Cure, it must however be acknowledg'd, that some unable Physicians, of little Sagacity and Judgment, of a cloudy Imagination, and whose weak Reason is continually puzzled, as well as other bold and rash Practisers, do often encrease the Distemper, and make it more dangerous by an injudicious Method and improper Remedies; and if the Patient recovers, and Nature prevails against the Doctor, he is greatly satisfied in himself, and confirm'd in the Opinion of his Medicines, believing he has cur'd the Patient, who had only the good Fortune to escape.

It must be observ'd, that I do not reckon the Beginning of it, from the previous Indispositions and Disorders for several Days that introduce it, when the Patient is in Doubt whether he is sick or well, but from the Time when he yields to the Fever, and takes his Bed; at this Beginning, it has been shewn, that the Spirits receive the first Impression of the Fever, as they continue much affected thro' its whole Course, whence proceed Loss of Strength, great Anxiety and Dejection of Mind, with frequent Sighs and violent Sicknefs; and when the malignant Ferment is communicated by the Nerves to the Blood, it causes there a
Solution

Solution or Disruption of the Integral Parts, which are but other Names for Putrefaction. It is therefore very reasonable that such a Method of Cure should be prescrib'd as will be most proper for the two principal Ends, one to animate, support and comfort the suffering Spirits, and supply them with the Auxiliary Aid of generous Medicines, that thus reinforced they may undergo their Labour, and receive Strength to conquer and expel the Enemy; the other is to stay the Progress of the Putrefaction in the Blood, to restore the Union of its Parts, re-establish their former Harmony and Coherence, and enable it to digest and exclude the noxious and corrupted Juices. And if proper Medicines are at first given, and from time to time administer'd, and varied according to the Variety of the Patient's Circumstances for the two great Purposes I have nam'd, one may reasonably expect a happy Issue in all Curable Cases of this Kind.

In the first Place, the Spirits will be assisted and the Symptoms of the Head relieved by taking away 10 or 12 Ounces of Blood from the Arm, if the Pulse have Vigour and Force enough to bear that Evacuation; but if they are swift, weak and low, bleeding must not be attempted, lest it depresses instead of raising the Spirits, tho' it must be observed,

ved, that the Application of 6 or 8 Leeches to the Temples after several Days, and when the Fever is advancing to a Crisis, has been very useful.

Generally speaking, in the mildest malignant Fevers, where but a small Portion of the Blood is dissolv'd and Putrefy'd, Remedies of a moderate Heat and Activity will be sufficient to assist and support the Spirits, and the active vital Principles of the Blood, while they concoct the malignant Matter, to exclude it by a critical Separation from the Mass ; for in such a Case the Symptoms are not violent, the Sweats not profuse, nor the Spirits greatly oppress'd, till the miliary Eruptions coming out regularly about the eighth Day, and in a small Number, like the Pustules of the Small-Pox of the distinct Kind, the Patient generally is restor'd to Health; the Remedies therefore should be of a milder Cordial Quality, that may cherish and enliven, but not too much agitate the Spirits. In this Kind then the following Method may be pursu'd.

Take away 10 or 12 Ounces of Blood at the first Seizure, if the Pulse be not too low and depress'd.

A Vomit should be administer'd the next Day, if Nauseousness and Inclination to vomit require it ; for tho' this cannot be suppos'd to separate and carry off the Matter of the Fever, which

as yet must certainly be undigested, and therefore inseparable, yet this Evacuation may discharge those noxious Humours in the Stomach, which not only may hinder the Operation of the Medicines, but may soon be chang'd and assimilat-ed by the Matter of the Disease, and acquire a Malignant Quality, from which the Distemper might receive greater Strength. Besides, a Vomit will prove Friendly to Nature, by the Shake or Concussion of the whole Frame or Systeme of the Nerves, by which they may free them in some Measure from the noxious Particles, that have invaded them.

The Form follows :

Take of Milk-water, or Spring-water, three Ounces ; of the Indian Root called Ipecacuhanna, half a Dram ; of Emetic Tartar three Grains ; make it into a Draught. Let it be given in the Morning or the Evening, and let the sick Person after half an Hour drink plentifully of the Infusion of Carduus Leaves, or of Carduus Posset-drink, or strong Tea.

Remedies, that by their Cordial Vertue cheer and revive the Animal Spirits, and bring in Foreign Supplies of Strength to the Assistance of the sound Principles of the Blood, to enable them in their Feverish Conflict to drive out the Enemy from the Parts which they have broken

into, and to dislodge them from their Settlements, should be moderate, and such as these that follow :

Take of Gascoign's Powder a Scruple, of Contrayerva Stone half a Scruple; mix them, and give them every six Hours in a Spoonful of a temperate Julep, drinking after it 3 or 4 Spoonfuls more.

The Julep may be as follows :

Take of Milk-water ten Ounces, of Plague-water four Ounces, sweeten the Mixture with Sugar, or with 10 Drams of Syrup of Clove Gilliflowers.

Twenty Drops of Compound Spirit of *Lavender*, mixt with an equal Quantity of *Sal Volatile*, may be given often in Sack-whey, or Sage Posset-drink, or a Draught of Water mixt with two or three Spoonfuls of *Canary*.

Clysters should be administer'd of Milk or Sack-whey, with three Spoonfuls of course Sugar, or 12 Ounces of the common Decoction for Clysters, with two Drams of common Salt, and an Ounce of *Lenitive Electuary* may be injected, if the former Clysters have not their Effect : one or two Operations will be sufficient. This should be done every other Day if the Necessity of the Patient requires it, or Suppositories of common Salt, Species or Powder of *Hiera Picra* and Honey, may perform the same Office, The

The Cordial Remedies before-mentioned, should, in the Progress of the Distemper, be varied in their Doses ; that is, augmented or diminished, or given more or less frequently, according to the various Circumstances of the Patient ; always shewing a just Regard to this standing Rule, which should govern the Physicians Conduct, that when by their Weakness and Depression the Pulse appears to be below, or by their Height and stronger Strokes and Vibration, to be above the Standard of Nature, that is, that equal, soft and steady Manner of beating, which they are observ'd to keep in a healthful State, then the Medicines ought to be different ; in the first Case, such should be directed as have a sufficient Force and Vertue to raise and enliven the Pulse ; and in the last, such as are proper and effectual to lower and reduce them to the Standard before-mentioned ; but of this more hereafter.

And when the Fever is advanced towards its State or greatest Height, it will be proper to encrease the Force of the Remedies mentioned, to repair Nature, and bring it stronger Succours, when its Force is much spent and exhausted by its long Labour and Conflict ; and therefore I would then add to the former Powders, four or five Grains of *Saffron*, and as much *Castor*, and make all into a *Bolus* with Syrup of *Clove Gilliflowers*. Ye-

Vesicatories, or Blistering Plaisters, form'd of *Spanish Flies*, ought to be employ'd when the Spirits are oppress'd, and the Pulse labouring and weak, below Nature's Standard, for the same Reason that warm and operative Remedies are then to be given inwardly: for they likewise are Cordials, tho' outwardly apply'd to stimulate and enliven the Spirits, and rouse them up to do their Duty; for as to the Evacuation caus'd by them, it is of little Consideration, compar'd with the other Benefit; and therefore when the Spirits are low and languishing, when the Head is dozy and stupid, these Remedies are with good Reason employ'd; and they are likewise demanded, when the Nerves are affected, and the Tendons spring and leap in a convulsive Manner; but they are chiefly demanded when the Fever is at its Height, and when Nature is almost put to a Stand, that is, when the active Parts of the Blood seem unequal to their critical Task, and lie down under their Burden; then the Application of Blisters is necessary in Conjunction with generous inward Medicines, to spur them up to exert themselves, and use their utmost Efforts to throw off the malignant Load that oppresses them; by which Means the Patient is often reliev'd. But to apply Vesicatories or Blisters in all Sorts of Fevers, and in all the Stages of them, and in all the Varieties

rieties of Symptoms, to design by them to awaken and animate the Spirits, when the Head is dull and sleepy, and to reduce and restrain them when they are too much agitated and expanded, as in Case of Wakefulness and Lightness of the Head, is to act mechanically without Judgment, Reason, or Distinction, and to assign opposite and repugnant Tasks to the same Remedies, that is, to rouse and awaken a Man in an Apoplexy, and likewise to compose the raging Lunatick.

And this leads me to another Subject, I mean obstinate Wakefulness, with great Inquietudes, which often happens in this Sort of Fever: During the pressing Symptom, I have often found, that the following Draught given every Night while the Spirits are so much expanded, and are under violent and restless Agitations, has been very prevalent :

Take of Venice Treacle half a Dram, of Diacodium 6 Drams, of Plague-water 3 Drams, of Spirit of Vitriol 5 Drops, black Cherry and Milk Water, each an Ounce and half; mix them for a Draught: Sometimes I have made it a little stronger, by adding 5 Drops of liquid Laudanum; for when Inquietude is the Symptom, Quiet is the Cure.

But here I must observe, that this Practice is fallen into Disgrace with some Physicians of no small Reputation, they have

have conceiv'd such a Displeasure and Prejudice against all quieting Remedies of the Opiate Kind, even the lowest Preparation of it, Diacodium or the Syrup of white Poppy's, that they are hardly perswaded to use it, even in the lowest Measure. The Reason they give for being Dissatisfied with this Medicine is this; that it *locks up the Humours of the Body*: This is an Obscure and Vulgar Expression, and one would be glad to have a Key to unlock it: It imitates the Phrases of the Country People, who say they have gotten a Surfeit, and this is sometimes by Eating improper Meats, sometimes by Heats and Colds, and sometimes by lying upon the Ground, and with the like Ignorance ascribe Pain in the Limbs to a Wind and Water between the Skins. When the Gentlemen that make this Objection will unmask their Meaning, by using Words Intelligible, I shall consider it as it deserves. Others with more Sense and Judgment will not employ this sort of Remedies, for, say they, they cloud the Brain, disturb the regular Motion of the Spirits, and the next Day occasion heaviness in the Head, and Sickness in the Stomach. Let it be granted that this is true in some Measure; but does not this Objection lie equally against the use of Opiates in all other Cases? Is not its Operation attended with like Inconveniencies whenever

ever it is given? It is pity that no means are yet discover'd to prevent the Inconveniences occasion'd by this Admirable Medicine, this Bountiful Gift of Providence, for mitigating the Pains and Sorrows of Mankind; but the Advantages, however, that arise from the use of it, exceedingly outweigh the Disadvantages by taking it; and therefore the World should not be defrauded of the great benefit of a Drug, that is so excellent a Remedy, when it is administer'd by judicious Hands.

The next degree of Miliary Fevers is accompanied with the same Symptoms, but in a higher Measure, with the Addition of others, more severe and dangerous, that is, greater Vomitings, more frequent Loosness or Dejections, profuse Sweats, and depression of Spirits, obstinate waking, twitches and springing of the Tendons, or great Sleepiness, while the Tongue is often dry and rough with a brown list in the Middle, and sometimes black, and sometimes swellings beneath the Ears, and bleeding at the Nose, and by Urine. In this greater Distemper, that owes its Poisonous Quality to a greater measure of Corruption or Mortification in the Blood, Physicians should have recourse to more enlivening and Operative Remedies, than those which have been mention'd, as sufficient for the Cure of the last; such as *Venice Treacle*, *Virginia Snakeweed*, *Diascordium*, *Volatile*
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Salt of Hartshorn, Saffron, Castor, Myrrh, Cochineal, Powder of Vipers, Contrayerva Stone, and Gascoign's Powder ; of which I shall set down some mixt Forms, and the times of taking them, when I have answer'd the Objections against this Method. There are some Gentlemen of the Profession, who are not thoroughly acquainted with the force of Medicines, out of a tender concern for Nature's Ease and Tranquillity, are afraid of using such generous Remedies, as I have mention'd; least they should disturb her Repose, and put her into a Hurry ; and if that should happen, all Things would be in Confusion, and the Patient be cast into a dangerous State. But, in my Opinion, Nature seems little oblig'd to these Civil Gentlemen, who are so much concern'd for her Tranquillity and Repose, that for fear of disturbing her, they fairly leave her to shift for her Self. This Phrase of putting Nature into a Hurry being neither Philosophical, nor Intelligible, is unbecoming a Physician of Judgment and good Sense. Since they name the word Nature so often, it is easy to imagine, that they mean something by it, but it is hard to guess what it is. If they mean any thing that can be understood, and is agreeable to Reason, it must be the animal Spirits and active Principles of the Blood, which preside over all parts, govern and assist their Functions, and keep
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a just Oeconomy in the whole ; and if these Rulers and Directors of the Animal State, are assaulted and weaken'd by Sedition within, or Invasion from abroad, if Assistance be given them by warm and operative Remedies, to enable them to perform their Offices, must this be call'd the carrying of Things too far, and putting the Animal Government into an Uproar and Confusion ? On the contrary, by strengthening the Spirits, and raising the active Principles of the Blood, the Physician restores them to their just Superiority and Dominion, expels the Enemy, and by this means recovers Peace and Tranquillity. There is some hope therefore left that this hurry or agitation of the Spirits may be very serviceable in spurring up, and enabling Nature to exert her force for the Expulsion of the feverish Matter. I have often wonder'd why these calm and peaceable Doctors, who are so careful not to put the Spirits into a lively Motion, are not at the same time afraid of applying three or five, and sometimes more Vescicatories or Blisters at a time ; will not these as effectually stimulate, and rouse the Spirits, agitate the Blood and Humours, and put Nature into a great hurry, as they elegantly call it ? For is it not from that greater Motion and Activity of the Spirits, that they expect the Benefit of their Remedies ? How absurd then and

inconsistent is this Method of Practice, that excludes the Use of Cordials? But still they adhere to their Notion, and you cannot get this *Hurry* out of their Minds; they insist, that such Remedies as I have reckoned up are detrimental in all, even in the highest Miliary Fevers, and they put their whole Trust in the all-sufficient Power of *Gascoign's Powder*, in all States of the Disease, and all Varieties of Symptoms and Circumstances. What must the Patient take to raise a low and languishing Pulse? *Gascoign's Powder*. What to reduce and bring down one high and tow'ring? *Gascoign's Powder*. What to mitigate Inflammation, or resist Putrefaction? *Gascoign's Powder*. What Means are proper to awaken a sleepy and stupid Patient? Why, the same Powder. What to cure and remove a stubborn Wakefulness or Phrensy? The same noble and generous Remedy. I would not expose that Powder to Contempt; it is inoffensive, and often useful in lower and less dangerous malignant Cases; but in this higher kind, to commit the Issue wholly or chiefly to the Care and Ability of this Medicine, I think is very wrong. I do not believe it will kill the sick, but I believe it will let a great many drop, such as might have been saved by more proper and effectual Means. Yet the sedate Doctors, who are so unwilling to awaken and rouse

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Nature, for Fear of disturbing her, that they bring her little or no Aid, while they stand by with an indolent Neutrality, as to inward Remedies, and give Nature and the Disease fair Play; yet if by inbred Strength and Vigour the Patient recovers, they rob Nature of her Right, and without Justice or Remorse usurp the Honour of the Cure: But if the Patient falls, why then weak Nature is reproach'd for not sufficiently assisting the *Gascoign's Powder*; which however in Reason should have assisted her, and the Physician comes off without Blame.

I am past doubt, by repeated Trials, thro' the Circle of many Years, that the Medicines above enumerated are very beneficial in the Fevers of which I am now discoursing, and I shall set down the Forms or Compositions of them to be given after preceding Evacuations. If the Pulse by their sufficient Strength and Equality encourage it, blood-letting to a moderate degree, that is, to 9 or 10 Ounces, is very useful; and if Vomitings, or great Sicknefs, Loathings of the Stomach, affect the Patient, such a Vomit as mentioned before may be given, or this that follows:

Take six Drams of Infusion of Crocus Metallorum, an Ounce of Oxy-mel Scilliticum, in a Glass of White-wine or Carduus-water, and as it works drink plen-

plentifully of common Posset-drink, or any other convenient diluting Liquor.

If the Patient be of a stronger and more robust Constitution, two Drams more of the Infusion of *Crocus Metallorum* may be added. If after this the strainings to vomit should return the next Day, or afterwards, to quiet and subdue that grievous Symptom, the following Prescription will be useful :

Take of the Juice of Lemon and Mint-water each 2 Ounces, of Salt of Wormwood a Dram or four Scruples ; mix them together, and when the Conflict and Fermentation is ended, take two Spoonfuls of this Mixture, and repeat it 6 Times every four Hours ; and if this does not prevail, add to each Dose 12 Drops of liquid Laudanum, which can by no Means be hurtful, since if the Vomiting continues it will be cast up again, and if it be slept, there is no further Occasion of using it.

I must here observe, that sometimes about the fifth Day there will appear on the Breast and other Parts reddish Suffusions, broad in comparison of Miliary Eruptions, or Scarlet Spots, and which do not arise above the Surface of the Skin, that in a few Days will disappear : These are no critical Separations from the Blood, but Marks, that warn the Physician of a great Degree of Putrefaction.

The due Evacuations being past, the temperate Sort of Cordials, which during the first Stage of the Distemper should be us'd, a judicious Practiser will improve by the Addition of more active and comforting Remedies, as the Symptoms and Circumstances of the Distemper require, by which he will assist afflicted Nature in her doubtful Strife and Conflict, while she digests the feverish Matter, and at length makes a critical Effort to exclude it on the sixth Day and sooner; if a low and labouring, or intermitting Pulse shall require, the Patient may take the following Bolus every sixth Hour:

Take of Diascordium half a Dram, of Contrayerva Stone fifteen Grains, of Saffron, volatile Salt of Hartshorn, and Castor, each five Grains; make them up with Syrup of Clove Gilliflowers into a Bolus. But if the Sweats are violent and profuse, leave out the Saffron and the Salt of Hartshorn, and add five Grains of Salt of Amber, and as much Tartar vitriolated, and let the Patient drink Lemon Posset-drink, and be sometimes for a quarter or half an Hour taken out of Bed.

Nor do I hinder him from changing sometimes his Shift, which I permit also in the Small-Pox; for I cannot imagine how Linen foul with Sweating, and stiff with

with the running of Blisters, can any way promote a Cure: But, on the contrary, such Impurities are more likely to obstruct it. Volatile Spirits, and that of Lavender, may be given with Advantage twice or thrice a Day in any convenient Liquor.

A little before the Miliary Eruptions appear, which they usually do about the eighth or ninth Day, then more active and generous Medicines may be administer'd, if Nature appears distress'd and hard beset: For Example,

*Take of Venice Treacle half a Dram,
of Contrayerva Stone fifteen Grains,
of Saffron, Myrrh, and volatile Salt
of Hartshorn, each four Grains;
made into a Bolus with Syrup of Clove
Gilliflowers, to be taken once in five
or six Hours.*

If the Patient is dozy, the *Venice Treacle* may be omitted, and its Place supply'd by an equal Quantity of *Diascordium*, Sir *W. Rawleigh's* Confection, or that of *Alkermes*.

If the Miliary Eruptions are very numerous, and especially if Scarlet, or little reddish or blueish Spots are interspers'd, the Case is always dangerous, and very often fatal; and if there happens a copious Effusion of Blood from the Nostrils, and it be likewise mingled with the Urine, it is usually inconsistent with Recovery; for these Symptoms discover
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a very great Difunion and Corruption of the Blood, fuch as accompanies the worft kind of the Small-Pox ; and therefore in thefe Cafes, which much re-
 femble that great Calamity, it is rea-
 sonable to infift upon a like Manner of
 Cure ; and therefore in fuch a great
 Solution of the Blood, cooling, acid,
 and astringent Medicines fhould be mixt
 with the Cordials, one to bind up the
 fhatter'd Parts of the Blood, and prevent
 their further Solution ; and one to fupport
 and revive languifhing and oppreffed Na-
 ture, and bring Relief to the active vital
 Principles. For Example :

*Take of Diascordium, or Confect of Al-
 kermes, half a Dram ; of Saffron,
 Myrrh, and Virginian Snakeweed,
 each fix Grains ; of Sal Prunell. or
 purify'd Nitre, twenty Grains, with
 Syrup of Lemons ; make it into a
 Bolus, to be given once in fix Hours.*

Or,

*Take of Venice Treacle half a Dram,
 Sal Prunella, or Nitre purified, twenty
 Grains, Saffron four Grains, with
 Syrup of Lemons ; make it into a
 Bolus : To be taken once in five or
 fix Hours with Poffet-drink of Le-
 mons, or Wood-ferrel.*

The Juices of Lemons and Oranges are
 very proper, as likewise 5 or 6 Drops of
 Spirit of Vitriol, infill'd twice or thrice

a Day into the Liquors, which the Patient takes, as Sack Whey, Wine and Water, or small Beer; and quieting Medicines, so far as a Spoonful of *Diacodium*, mixt with half so much Syrup of Lemons, may be taken at Night, and repeated early in the Morning, if the Patient be not of himself over sleepy; for it is certain that opiate Medicines have a binding Nature, as those must acknowledge who say they lock up the Humours of the Body, except in Cases of Sweat, which they promote: And therefore the Remedies, which I have nam'd, and others of the like cooling, acid, and astringent Nature, which close and contract the loose and feeble Structure of the Blood, and thereby hinder the Separation and Corruption of the Parts, while the more reviving and generous Cordials assist the labouring Spirits, must be allow'd to be very reasonable.

As to Blistering Plasters, which agitate the Spirits, and dilate and expand the Blood, it is certain, that in Cases attended with bloody Urine, or copious bleeding at the Nose, which discover great Corruption or Putrefaction, they must be condemn'd as most improper; for it is evident, that their Operation is such as will much aggravate, and not reduce those Symptoms. But, as I said before, if no spontaneous Bleeding attends the

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the Fever, Blisters at the Approach of the expected Critical Separation are very useful, and should be renew'd till the Malignant Matter is discharg'd, and the Patient is reliev'd.

Camphire has been recommended by several Physicians as a very Beneficial Remedy in these Fevers; but as it is nauseous and disagreeable to the Stomach, so I have not found, after repeated Trials, that it has answer'd the Encomiums given of it; and a Multitude of other vegetable Medicines, and Chymical Preparations of Minerals, are greatly applauded by several Writers; but, as their Efficacy has not been confirm'd by sufficient Experience, they are by no Means to be depended on.

Obstinate Hiccoughs are a frequent Symptom in malignant Fevers; and the best Remedies to subdue them are, half a Dram of *Venice Treacle*, with 6 Grains of Musk, and as much *Contrayerva Stone*; but if these are ineffectual, add to them half a Grain of crude Opium twice a Day; and if that likewise should not prevail, the Patient may take at Night four or five Spoonfuls of *Hiera Picra*.

Clysters or Suppositories must be given and repeated thro' the Course of the Disease, if the Body is bound.

In Case a Looseness or frequent Dejections, which generally are a hurtful

Symptom, and not a wholesome Crisis, should afflict the Patient, as they often do, they should be restrain'd and kept in Bounds, tho' not suddenly stop'd. Which may be done by the following Means :

Take of Barley, Cinnamon-water, and Mint-water, each three Ounces ; of Diascordium and Venice-Treacle a Dram ; of liquid Laudanum half a Dram ; mix them together, and let the Patient take two or three Spoonfuls after every Stool, using for his common Drink that made of burnt Hartshorn, or red Wine and Water scalded together, and sweetned with fine Sugar ; and all Malt Liquors are forbidden.

This Looseness, at the latter End of the Disease, often ceases by the Translation of the noxious Matter from the Glands or Strainers of the Gutts to the Stomach, where it creates Windiness and Hiccoughs, which are not of the same hurtful Nature and ill Consequences, as those mentioned before ; for they often disappear by a farther Translation of the malignant Matter to the Glands of the Mouth, where they form small white Ulcers, called *Apthæ* ; this is the last Effort of Nature, after many unsuccessful Essays to expel the Poison by other Places, to free her self from her Enemy, and recover a healthful State ; and by Means of this
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fore Mouth, there is often procur'd a plentiful and kindly Discharge of white Matter, that lines the Roof of the Mouth, and is ripen'd and wash'd away in Sloughs, by a sufficient Quantity of a thin watry Humour, that accompanies the *Apthæ* or little Ulcers, which are of more Value and Vertue than many Blisters, and which usually continue to cast off the Distemper during 6 or 7 Days ; and thus Nature is often reliev'd by this her last Shift, and triumphs over the expell'd Enemy : During this decisive Dispute, the Mouth must be eas'd, and the Ulcers sooth'd with soft emollient Gargals, and Injections by the Syringe ; all Liquors must be drank warm ; nor are acid and sharp Things to be us'd but in a very small Degree, lest they check or repel the critical Eruptions, and so overthrow the wholesome Purpose and Design of Nature.

I have hitherto been discoursing of Miliary Fevers of the shortest Duration, which are usually at their Height about the thirteenth Day ; but when Nature, a Day or two after the Miliary Spots appear, finds her self dispirited and oppress'd, and is unable to throw off the Malignant Matter, after several ineffectual Pushes and Tryals, it quits the Combate, lies down in Despair, and yields up Life to the prevailing Enemy ; and in this Case the Patient expires

pires about the Eleventh or Twelfth Day. But usually the Dispute is held out much longer, and the Eruptions are thrown out plentifully upon the Skin, and grow up, ripen, and gather white Heads, full of Matter; and then the Decision is deferr'd to the Fifteenth, sometimes to the twentieth Day; and in some Cases it continues undetermin'd much longer. If, after the Eruptions are ripen'd, and begin to dry and disappear, the Symptoms are much mitigated or remov'd, the Patient soon recovers; but if the Pulse remain low and languishing, with Lightness of the Head, deep Sighs, and Wakefulness, Nature is then exhausted and overcome in the Strife, while the putrid Matter remaining in the Blood prevails, and Death is near at Hand. But the Miliary Fever, as well as that accompanied with minute Chrystalline Bladders, is sometimes protracted to a greater length, and therefore is call'd slow and lingering, in Distinction from the more acute, and of shorter Duration; for in these Cases the Vital Heat being weak and low, and the Spirits in a heavy, torpid State, it is long before the crude Matter of the Disease is digested, and frequent Imperfect critical Separations are made before the whole Putrefaction is subdu'd, and thrown off from the Blood: These dull and slow.

Distem.

Distempers sometimes continue twenty-five, sometimes thirty Days, and sometimes several Days longer, before the Difficulty is over: It is true, that commonly if they reach the twentieth Day, the Patients recover, tho' sometimes they fall even after thirty Days: Often after fourteen or fifteen Days they continue in the same State, with little Alteration for a long Time, while Hopes and Fears, Death and Life seem to hang ballanc'd in equal Scales, and the Victory inclines to neither Side; but this must be observ'd, that after such a Space of Time, not to go backward is to go forward, and not to grow worse is to grow better; since the Patient in such doubtful and lingering Cases generally escapes.

I must here advertise the Reader, that sometimes in an acute, inflammatory Fever, accompanied with great Pains and Swellings in the Joynts, which is called a Rheumatism, the Seeds of a malignant Fever at the same Time are lodg'd in the Blood; and tho' at first the Pulse is strong, and high, as they usually are in Fevers of that inflammatory Kind; yet after eight or nine Days, and when the Patient has been let Blood perhaps twice or thrice, they will sink and become weak, and then suddenly will appear Miliary Eruptions; and the Course of this malignant Distemper

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per must be finish'd, which is always dangerous, Nature being weaken'd by Labour and Struggle with the Rheumatism before, and often mortal. In this Case, as soon as the Physician observes the Change, he will be oblig'd to have Recourse to the more noble and generous Medicines requir'd in malignant Fevers.

S E C T I O N III.

I HAVE hitherto discours'd of the Method of Cure in malignant Miliary Fevers, which likewise is as proper to be observ'd in those that are attended with Scarlet or Purple Spots, that do not rise above the Skin, as Parity of Reason, and due Observation of their Nature, must require; for these are but of a higher Degree, and accompanied with the same, tho' more grievous Symptoms.

By these Steps we ascend the Scale of malignant Fevers, to the highest of them, the Plague, as before asserted; and prov'd the principal distinguishing Character of the Plague, as I have shewn in the first Part of this Dissertation, is its contagious Quality, vastly superiour to that of all other Fevers of the malignant Kind. This Contagion is the Translation or Conveyance of the putrid *Effluvia* or pestilential Vapours.

Vapours from the Body of one Person to the Body of another, in which they produce the like dreadful Disease in the Manner already explain'd. These infectious Vapours or Exhalations diffus'd thro' the Air by their tenacious and viscus Constitution adhere closely to it, and therefore are carry'd to a great Distance, and when with the infected Air they are by the Breath drawn into the Lungs, they affect the Spirits and the Mals of Blood by their poisonous Quality. These Vapours may be convey'd far and wide, and Historians relate, that the famous Plague of *Athens* that made such terrible Havock and Devastations was brought thither by the Winds from *Egypt*. Nor is it to be doubted, but that the Winds that drive the Air full of putrid and venomous Particles may be the Conveyancers of the Pestilence from Town to Town, and from Country to Country. It is remarkable, that odoriferous Vapours from Spicy Woods are perceiv'd by Mariners at Sea afar off; and that sweet Scents from abundance of fragrant Flowers on the Shore, will be wafted by fresh Gales to a great Distance. It is no Wonder then, that Pestilential Steams or Effluvia should be thus born from City to City, and from one Kingdom to another.

THE Pestilential Atoms, which are the Seeds of the Plague, may likewise be communicated to the Body by Flesh - Meats, Herbs and Fruits on which the infected Air has shed its Poison, which being admit-

ted into the Stomach, affect the Spirits, and create Putrefaction in the Blood. The Plague may be likewise propagated by Goods and Wares imported from infected Places, by Wool, Cotton, Leather, and by Garments in which are lodg'd corrupt malignant Particles of Matter; and therefore the Government in all States and Kingdoms bordering upon any infected People, should use the utmost Care and Precaution to hinder effectually any Persons or Merchandizes from entering into their Country, from Places visited with this terrible Calamity. This is all that the Magistrate can do, to prevent the Importation of the Plague from Foreign Parts, besides obliging all that come from suspected Places, as well as those where the Pestilence is known to rage, to perform Quarrentine for Forty Days: For tho' Garments, Pieces of Linnen or Leather laid up in close Places, whence the Air is excluded, will as before observ'd, retain Seeds of Malignity several Years; yet it is seen by Experience, that if any contagious Matter be lodg'd in the Garments, it is dispersed ventilated and extinguished in the Space of the Time before-mention'd.

BUT in Case a Nation is invaded by this dreadful Enemy, and the Plague is evidently begun, it will be demanded what are the best Preservatives from catching the Contagion, I answer in the first Place, speedy Flight from the infected Place, for those whose Circumstances

cumstances are consistent with this Advice ; the next is a vigorous Constitution, in which the *Stamina* and first Principles of Nature are found, strong and generous: Men thus made have Spirits endow'd with such Force and Activity, that they often resist the Infection, or soon throw it off when admitted into the Veins. But tho' this be a great Defence and Security against Contagion, yet it is not the Matter of our Choice, but the Felicity of Native Temperament and Constitution which is form'd of excellent Materials, and lasting Principles of Life deriv'd from sound and healthful Parents.

THE next best Preservative, and which is in our own Power to employ, is to furnish the Stomach with good and wholsom Food which may convey good and wholsom Nourishment to the Blood, and active Supplies to the Spirits ; as likewise to animate the Veins with reviving and generous Wine, which will enable Nature to abide the Assault of infectious Vapours, and preserve the Vitals from being invaded. By this Means the Defect of Native Courage, and the Want of a robust Complexion, is in some Measure supply'd. It will therefore be the Care of the Civil Magistrate to furnish infected Places and the adjacent Towns, before they are infected, with plentiful, at least sufficient Stores and Provisions ; for as meagre, feeble and half-starv'd Bodies abound with Humours from course and unwholsom Fare, so they want

Vigour, Fortitude and Spirit to withstand and repell Contagion. And this I look upon as necessary in the first Place ; for Scarcity and Famine will kill as many as the Pestilence, and besides it will propagate and increase it ; for infectious Exhalations or Vapours will light upon Bodies so prepar'd and dispos'd to receive their Poison and take Effect, as when Sparks of Fire fall upon Tinder. It is therefore of the utmost Concern, that the People be provided with Plenty of good Meats and strong Liquors, for the wholesome Purposes I have nam'd

THERE is another Preservative against Contagion, which is a lively and cheartful Disposition of Mind ; for when the Spirits are put into a pleasing Motion, when Content and Satisfaction, Order and Regularity in the Animal Oeconomy, by an even and equal Temper prevent the Disorders and Tumults caus'd by violent Passions, a Person is better prepar'd for his Defence. For good Humour, Alacrity and Joy, fortify and invigorate the Spirits, and make them more capable of driving back the Enemy, while timorous, diffident, and weak-hearted Persons are expos'd to great Danger, being half dead, before the Adversary approaches.

As to the making of great Fires to hinder the spreading of Infection, it seems much more detrimental than useful. For it is evident that Heat does not purify the Air, and free it from the Pestilential Particles that inhabit

habit there ; but on the contrary, by opening and enlarging its Pores, it gives an easy Admission to such Exhalations : And this is evidently confirm'd by this undeniable Observation, That the Pestilence advances, and spreads its contagious Fury in the Summer-Season, but is suppress'd or check'd in its Progress, while the Frosts and rigorous Cold of Winter, streighten and contract the Pores or Vacancies of the Air, by drawing its Parts closer together, by which Means the noxious Seeds of the Plague cannot enter and be receiv'd in so great plenty. Neither does Fire, or fiery Bodies, seem to have any Qualities opposite and repugnant to the Pestilence, nothing that by its contrary Operation will destroy and extinguish it. It will indeed purge the Air, by dissipating raw Damps and moist Exhalations, that rise from fenny or watry Lands, which also are hurtful in their Kind ; but it has no opposite Property, no peculiar Virtue to withstand or destroy malignant Atoms, and so purify the Air from Contagion. And this is evident from general and constant Observation, That in hot Countries, where suffocating Fumes, and sultry Exhalations rise from the Earth, while too much Sun dilates, and widens the Pores and Meshes of the Air, to receive them, the Plague is more frequent, than in the cold and frozen Parts of the Southern World.

As to the ringing of Bells to purge and refine the Air, and render it wholesome by the Dispersion of the Pestilential Matter lodg'd within it, it will easily be seen that this Expedient can avail little; for if the constant ringing of Bells could, by the Agitation of the Air round about, dissipate and consume the malignant Impurities that adhere to it, this Effect would more certainly be procur'd by the stronger Force of high Winds and Tempests, which, however are so far from purging the Air from such destructive Vapours, that they carry them abroad and spread the Contagion farther, without abating their Fury in the infected Places; by which Means, as before explain'd, it is convey'd from Town to Town, and from one Country to another, as has been observ'd before, of the terrible Plague of *Athens*, convey'd thither by the Winds blowing from *Africa*; and this is so plain a Case, that it needs no farther Confirmation.

If the Walls or Furniture of the Rooms are suspected to have receiv'd the Pestilential Contagion, then the Smoke and Fumes arising from Materials proper to oppose and subdue Putrefaction, burnt upon Coals or Plates of hot Iron, or Exhalations from scalding Liquors, useful for the same Purpose, are requir'd. I have shew'd, that acid Remedies are most effectual for resisting the growth of Pestilential Corruption, as those that are generous and warm, are most proper to concoct

coct and exclude the Impurities already produc'd by the Solution, or Mortification of the Blood; and therefore these last mention'd must chiefly be insisted on, and the other in less Quantity, while you only apply to the Infection in the Air, the Walls and Furniture of the Room. And therefore the Powders of Zedoary and Myrrh, and a little Sulphur mixt together, and cast upon a Pan of Coals, so as to fill the Room with Vapours, while at the same time Vessels full of hot Verjuice or Vinegar, in which a good Quantity of Houseleek or Porcelain, Water-Lillies, Oak-Buds, has been boil'd or scalded, spread their Steams and Exhalations plentifully about the Room: This seems the most rational Method of perfuming Houses, to prevent Contagion, and many other Means us'd for this, seem as insignificant as Amulets, Charms, Spells and Reliques. I have before discours'd of the proper Method, and most effectual Medicines to be us'd in Malignant Fevers, thro' their intermediate Degrees to the highest, e'er yet they acquire the Putrefaction and Contagious Quality, that constitutes and denominates the Plague, and by the Lights received from them, thence we shall naturally be led and directed to treat of the Remedies most proper for the Recovery of those who are infected by this dreadful Disease; but first I crave Leave to make the following Observation.

I have already taken notice, that it is the Property of an ancient Physician to distinguish between curable, and incurable Diseases of the same Kind ; and the sick of the Plague are more or less curable, according to the less or greater Degree of its malignant Quality, when the Seeds and Principles of that terrible Distemper are refined, rectified and sublim'd to the highest Degree of Perfection, in their Kind, and perhaps, as great as they are capable of acquiring, at their first Invasion of a Town, they are very mortal and destructive ; for after a short Possession, strengthen'd by the Accession of new Forces, from dead Bodies, and their Conversion of all the noxious Vapours they meet with, into their own poisonous Nature, they make a dreadful Havock and Devastation among the Inhabitants as a cruel and enraged Conqueror, that enters a strong Place by Assault, puts all to the Sword, without Distinction of Persons, Age or Sex ; sometimes it strikes Men dead in a Moment, like a Flash of Lightning, or a poisonous Subterranean Vapour, that kills in an Instant, the unhappy Delver, that lets it out from the Bowels of the Earth ; for so strong is their malignant Quality, that at once, it suffocates and extinguishes the Spirits that animate, and move the Organs of the Body. During this terrible Slaughter made by an inexorable victorious Enemy, the Distemper is generally incurable ; Physicians, Surgeons, Attendants and Patients fall together, and lye

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in one promiscuous Heap: Those few that escape the Fury of the Destroyer, are generally, as I have observed them, Men happy in a vigorous, robust Constitution, and sound Principles of Health, whose Bodies are not disposed to receive Infection, but on the contrary, their Animal Spirits, and the nobler Parts of their Blood are endued with the Force and Activity, that they stand the Assaults, and refuse Admission to the Enemy; and if the Contagion break in, they expel and discharge it in Boils and Swellings often curable by the Surgeon's Skill, of which more afterwards. And others of an inferior Degree of Strength and Vigour, by their native Temperament and Complexion, may sometimes, by the Means of good Nourishment, from a wholesome Diet, and the temperate Use of generous Wine, and strong Liquors, as I have said, so well fortify themselves, that they may beat back the Contagious Enemy; or if it enter the Veins, sustain the Combate with Success; and for their Assistance, during the Conflict, I shall presently set down the Remedies, that seem the most proper and effectual.

THE Reason why the first Insults of a Plague of the violent and resistless Kind are so fatal, is this, that in malignant Distempers there must be allowed the Space of some Days, till the Spirits and the vital Principles of the Blood have laboured, subdued,

and digested the crude Matter of the Disease, and changed its noxious Quality, and brought it down to a weaker, and less offensive State, by which it is prepared, and made fit for Expulsion ; but such is the Strength and Fury of this highest Kind of Contagion, that it gives Nature no Time to perform this necessary Office for its Safety ; for immediately, in the Space of one Day, and frequently of two or three, it dissolves intirely the Union, and Connection of the Blood, and turns it into an incoherent Puddle, by a general Putrefaction. This universal Mortification appears in blue and blackish Spots on the Surface of the Body, but deeper than the Skin, which being penetrated by a Needle, are found to be insensible, which is not so, when Spots of the like Colour, in other malignant Fevers, undergo the same Trial. If any in these Circumstances recover, it is when Nature, unable to digest the malignant Impurities, makes a hard Shift to expel them crude and uncooked as they are, and casts them out into malignant Swellings, on the Surface of the Body : But if it does not attempt this Relief, the Agonies of Death are soon to be expected, and in the mean Time, the Physician can only prescribe such cordial and reviving Remedies, as may, for a Time, cherish and comfort the Patient, whom he cannot cure.

BUT when the Rage of this violent Disease is abated, or when a Plague less malignant and contagious at first appears, there is often Room for the Physician, who may in these Cases be very useful : And this I believe was the Case of *Hypocrates*, when he was sent for to cure the Plague in the Neighbouring Continent, which at its first Rise was not of the rankest and most poisonous Nature, or if it were, it had in a great Measure spent its Original Fury, and was become less destructive ; and that this was so, appears by his Method of Cure convey'd to Posterity, as *Kircher* relates, where a Course of Medicines is prescrib'd for many Days. Now in the more virulent and pernicious Pestilence like that, which is now rise in a Neighbouring Kingdom, the Disease destroys the Patient in one Day, or in a very few, so that this celebrated *Greek* could not have insisted on such a long Method of Cure as he did, had there been so short a Time allow'd him for the Trial of his Skill ; and by the Numbers that recover'd, it is very probable, that the Plague was in a declining State, or that it was of a mild pestilential Nature in comparison with the most exalted Malignity ; and had the Fact been otherwise, the successful Method of Cure which he us'd, and for which he was Deify'd, must likewise have been successful in following Ages. The Truth is, that no

Art, no Medicines avail, for the suppressing of this high contagious Disease, when it goes forth first in its Strength, conquering and to conquer, and like a Gyant inflam'd with strong Wine, triumphs in his Might, unpeoples whole Cities, and leaves the Country desolate ; or like a general Conflagration that blown up by the Winds, it passes from House to House, and from Street to Street, till the whole Town is laid waste by this contagious Calamity ; but when its Rage is mitigated, and its Strength by Degrees diminish'd, then it is brought down to the Class of less destructive Plagues which do not kill so soon, but give Nature some Law, some considerable Number of Days to contend and struggle for Life ; and in both these Cases I will mention the Medicines that seem most useful. And if any ask how I shall be able to do this without transcribing from the Books of others, since I never staid in any Place where the Plague prevail'd, I answer, that I have had a long Experience of the Nature of malignant Fevers and the method of their Cure ; and the Nature of those Fevers being the same with that of the Pestilence, since the Symptoms of the highest of such Fevers are so much the same with those of the lowest Kinds of the Plague, that it is hard to distinguish them, I may be instructed and qualify'd how to cure the last by
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being acquainted with the Method of Cure in the first; and I make no Hesitation to say that this is the Natural and true Way of coming to the Knowledge of effectual Remedies in this great Calamity.

A N immense Catalogue of Medicines for suppressing the Plague, have been recommended by various Physicians, in various Ages and Countries, tho' some, as the *Turks*, neglect the Use of all Medicines in this Case, led by the Doctrine of fatal Necessity, which notwithstanding in other Distempers they have Recourse to, and thus act absurdly and inconsistently with themselves. But if this Disease cannot be reliev'd, but with such an endless and costly Train of Medicines, how deplorable is the Condition of the lower Rank of People who are left to perish by their Indigence and Inability to purchase so many chargeable Remedies?

T H E R E has no Antidote, or Specifick Medicine for the Cure of the Plague been yet found out by the most inquisitive and sagacious Physicians or Philosophers; that is, there is not yet discover'd any Plant or Mineral, any single or compounded Remedy apply'd outwardly, or taken inwardly, that is endow'd with a peculiar Quality so contrary to this Disease, that it will suddenly and certainly suppress and extinguish it. No Remedy is known in this Case like
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the *Jesuit's Powder* and *Opium*, which prevail by the Specific Properties, one against an Ague and intermitted Fever, and the other against Pain and Wakefulness. I am not ignorant that a great Number of Antidotes or Specifick Medicines are recommended by our Writers, but alas! there is no Credit to be given to them, and no Dependance to be laid upon them, for were it otherwise, why do they avail little or nothing when try'd in these Cases?

SINCE then there are no Antidotes of certain Virtue for the Cure of the Pestilence, the Persons afflicted with that Distemper must be treated as those who are seiz'd with Malignant Fevers; and it must be observ'd, that the destructive Quality of any Disease, does not arise from Contagion; for the Itch is infectious, but not mortal, but more easily cur'd than other Diseases of the same, or of different Kinds, which, however are free from Infection. Thus the mild, distinct Kind of the Small-Pox are as really infectious, tho' not fatal. And tho' the rankest Sort of Fevers accompanied with miliary Eruptions, Swellings under the Ears, bloody Urine, or with Scarlet and Purple Spots, are often, but little, or not at all contagious, yet they are scarcely inferiour to the Plague in their destructive Nature, which depends upon the great Putrefaction of the Blood;

Blood; and I would sooner chuse to undergo the lowest Degree of the Plague, than the highest Sort of Malignant Fevers, or Small-Pox. The Inference from these Observations is, That a Physician long conversant with all Degrees of Malignant Fevers, is qualified for directing fit and proper Remedies for the Plague in all curable Cases; for as I have said, the rankest Kind of Malignant Fevers, are as destructive as the Plague it self, whether they are attended with Infection or not. Since then I have shewn, there is no Medicine of any Specifick Quality that cures the Plague, or any malignant Fever, no more than there is for the Cure of the Small-pox, Pleurisies, and other inflammatory Diseases, all that the Physician can do, is to remove the Effects, and countermine the Operations of this great Enemy, and to follow the Method useful in other malignant Fevers. And since the pestilential Vapour, at its first insult, affects the Animal Spirits, and afterwards is conveyed to the Blood, where it produces the Corruption, or Mortification of it in Part, or entirely, the Business of the Physician, as said before, must be to assist and enable the Spirits and nobler Principles of the Blood, to digest and exclude the Parts already putrified, and to hinder the Corruption of the sound, and so prevent the Putrefaction from spreading farther. These are the two great Intentions

tions to be pursued. To answer the first, such generous and cordial Medicines should be prescribed, as are proper to invigorate and enliven the Spirits and the active Parts of the Body, that they may be enabled to do their vital Office in subduing and expelling the Matter already corrupted; and to answer the Second, those Medicines should be given that are most proper to contract, bind fast, and restore the Connexion of the Mass of Blood, that the Mortification begun, may be hindered from gaining Ground, and making greater Waste, till it has dissolved the whole Contexture of it; and that these Purposes may the more effectually be procur'd, it will be proper to unite in the same Dose, or Mixture, the Remedies of greater Efficacy, to compass each Design, before-mentioned:

For Example,

Take of Diascordium half a Dram, of Myrrh and Saffron, each four Grains, of Flower of Brimstone, twelve Grains, of the Roots of Zedoary, eight Grains, of purified Nitre, a Scruple, with Syrup of Lemons; make it into a Bolus.

Or this,

Take of the Conserve of Red Roses half a Dram, of purified Nitre, a Scruple, of Myrrh,

Myrrh, Saffron, and Castor, each five Grains, Powder of Vipers and Flower of Sulphur, each half a Scruple, with Syrup of Lemons ; make it a Bolus.

The Powder of Vipers may be likewise taken in small Broth twice a Day.

EITHER of the two Bolusses I have mentioned, may be given every five or six Hours, drinking after it a Draught of Posset-Drink, made with Lemons, or Renish-Wine, or with Verjuice or Vinegar.

I have in these Remedies mix'd Flower of Sulphur, not only because the renowned *Hippocrates*, a Primitive Father of the Art of Healing, made great Use of it in curing the Plague above-mentioned, by which he gain'd such applause, and recommended it to Posterity, as a prevalent Remedy in pestilential Fevers as *Kircher* relates ; but because it contains cooling and acid Principles, as well as hot and active in its native Composition, which is agreeable to my Scheme and Method of Cure, built, as I believe, on the solid Foundations of Reason and Observation. Should it be objected, that I have supposed, that the pestilential Seeds and Vapours, that convey'd by the Air, infect human Bodies, are constituted and compounded of sulphurous Particles, combin'd with those of Nitre, and Vitriol ; and that therefore Sulphur, that consists of hot and acid Parts, cannot be a

proper Medicine to extinguish malignant Particles of the like Composition ; I answer, That when Sulphur, Nitre, and Vitriol, and perhaps other Adhesions, are supposed to be the Seeds or Efficient Causes of the Plague, they are likewise supposed to be together elevated, refin'd, and exalted to the highest Degree ; and when united in that sublime volatile and active State, they may be malignant and destructive, tho' before, separately, they were inoffensive ; so Mercury, Nitre, and Vitriol are unhurtful singly ; but become poisonous and fatal, when mix'd and exalted together by the Chymist's Fire ; and as the last, which is common with most Poisons that act upon the Solids, executes its Tragedy by corroding the Stomach, where it produces a Gangreen or Mortification ; so Nitre, Vitriol, and Sulphur combin'd in their exalted State, tho' by reason of their minuteness and great Subtilty, they pass unintangled thro' the solid Parts, make however a pernicious Impression on the Blood and Spirits whence Putrefaction or Mortification soon arises. I do not think that Sulphur has any Quality directly and fully contrary to the Seeds or Principles of the Plague, for if it had, it would be an Antidote or Specifick Remedy, and would alone, without any other Medicine, be sufficient to master the Disease ; but as I have said, no Remedy is yet discover'd of such a peculiar Specifick Nature that can alone subdue and cure the
Plague,

Plague, notwithstanding many have been recommended as endow'd with that Anti-pestilential Property; and therefore all that can be done, is what is practis'd in other malignant Fevers, the Physician must apply his Remedies to the evil Effect and Symptoms of this Poison, which is Putrefaction, that what is already caus'd, may be concocted and thrown off, and that the sound Parts may be preserv'd in their Structure and Coherence, and the Mortification may be staid from spreading farther, even to the compleat Solution of the Mass of Blood; and for this Reason, Sulphur is proper in this great Disease, as consisting of fiery and acid Ingredients adapted to this End as before explain'd; and it is not unknown that the Fume or Gas of Sulphur has been useful in malignant Cases, and for the Reasons I have given, it may be very useful in the greatest of all Distempers. But to proceed to other Forms of Remedies.

IF the Patient be faint and sinking, he may drink two Spoonfuls of Treacle-Water, with a little Verjuice or Vinegar in a Draught of Rhenish-Wine or Sack-Whey, and repeat it as Occasion requires, or let him drink a little Draught of Red Wine, that of Florence is best, because of its Astringency, and Spring-Water with a little Vinegar and Cinnamon burnt and scalded together.

THE Spirit of Vitriol is of great Use, and may be taken to five or six Drops in a Draught of Sack-Whey or other convenient Liquors thrice a Day.

As to Sweats, they cannot be useful at the first Attack of the Pestilence, nor indeed of any malignant Fever; the Reason is because the Matter of the Distemper being then crude and undigested, cannot by a critical Attempt be excluded; and therefore all such insignificant Efforts of Nature weaken and waste the Spirits, and disable them from performing their Office of Concoction, and Preparation of the noxious Parts for a wholesome Exclusion: And for this Reason, it is an injudicious and hurtful Method to stimulate and urge the Blood on the first Days of the Illness, to throw out the thinner Parts in plentiful Sweats; for since, as I have said, it is impossible to disengage and separate any malignant Matter before it is concocted, and while it lies closely entangled and complicated with the Blood, the active Principles are dissipated and too much spent by their fruitless Labour, and become less able to contend with the Enemy, and to go on successfully with the Work of Concoction: And if that be left unperform'd, the Event must be fatal, and therefore those Physicians that prescribe Remedies at the Beginning, to promote copious and constant Sweats, act contrary to the Laws of Reason and Observation, and do

not assist Nature, but infeeble it. Such Medicines will be profitable in their Season, and that is, when after some Days the Feverish Matter is subdu'd and digested by the Labour of the Vital and active Parts, and so dispos'd to be separated and excluded. Then indeed moderate Remedies to procure Sweats are highly necessary, and promote Recovery. Some Physicians of a slow Apprehension and undistinguishing Judgment, because Sweating is convenient and very useful at a proper Time, prescribe such Medicines at a Venture, as they do Vesicatories or Blisters in all Fevers, and at all Times and Stages of the Distemper, because at sometimes and in some Cases they are proper and beneficial. If it be objected, that if copious Sweats are not to be procur'd at the Beginning of the Pestilence, then in many Cases it cannot be attempted at all, for the Patient dies in two or three Days, and then there is no Room for such Evacuation. I answer, that this is indeed true; but then it must be allow'd that such a Disease is incurable and superiour to all Force of Physick. But in all curable Instances, which give Nature and Medicine Time to work and strive for Conquest with the Enemy; in all such Cases, I procure Sweats in Sweating Time, when the Pestilential Impurities are prepar'd for a Crisis. It is very true however, that neither Sweating or any other Remedies signify much in the highest Pestilential Cases when

when the Parts of the Blood by Divisions and Subdivisions are wholly disunited and reduc'd to the minutest State, and by a general Separation and Putrefaction, are broken and dissolv'd to that Degree, as to let out the dormant and imprison'd Seeds of Worms or Insects as before explain'd, and is ready to issue forth from the Vessels by all the Passages and Sluces of the Body, where it can most easily make its Way. In such incurable cases, where the Patient expires in a very few Days, Nature strives, but strives in vain, to expell the Enemy, (which sticks inseparately to it) by repeated Stools, great Vomitings, Effusions of Blood, and profuse Sweats; and this last was the Case of the Plague in *England*, called, *The Sweating Sickness*, which destroyed the Sufferers in a few Days; for the Blood being in the utmost State of Solution, or Disunion, by some particular Disposition of the Body, at that Time, rush'd thro' the open Meshes and Pores of the Skin, in such abundance, that Nature was soon exhausted, and laid waste; and therefore the Evacuation prov'd mortal, as it often does in other malignant Fevers, when great Sweats break out at improper Times, which in a due Season are very beneficial; and therefore, in all other maglignant Fevers, as well as the Plague, the judicious Physician will first rather restrain great and profuse Sweats, by astringent, cooling, and diluting Remedies, than promote

mote them by warm and generous Remedies ; and for that Purpose I have often us'd with great Advantage, the following Decoction,

Take of Root of Sorrel, Dandelion, Fennel, each an Ounce, of Candied Eringo Root, an Ounce, of Seeds of Purslain, sweet Fennel, each a Dram ; boil them in a s. q. of Water, to a Quart ; add to it, when strain'd, of Treacle-Water, three Ounces, of Syrup of Lemons, two Ounces ; drink of it a Quarter of a Pint, after each Cordial Bolus, before prescribed.

BUT still the Physician will take care, that Cordial, or Acid, and attempering Medicines, may be given together in that Proportion, which the Symptoms and Necessities of Nature do require, that is, where there are great Faintings, and the Pulse is low, labouring, and depressed, Cordials are demanded in a greater Quantity, and the others in a less ; and when the Pulse have more Force and Regularity, then the cooling and astringent Remedies should be us'd in a greater Proportion.

WHEN Burning, and Biting Heats, with excessive Thirst, and a dry rough Tongue afflict the Patient, besides the Medicines before-mentioned, the Blood ought to be diluted and attemper'd by a good Quantity of Lemon and Dandelion Posset-drink,
or

or Infusion of Sage-Leaves in a Quart of hot Spring-water, squeezing into it two or three Oranges, and adding to it two Ounces of Treacle-water, or an Ounce of Tincture of Saffron, by which Means his violent Heat, arising from a great Degree of Putrefaction may be mitigated and reduc'd. It is certain, that Dilution of the Blood, with plenty of attempering proper Liquors, is of great Use in the malignant burning Fevers; for since, as I have often observ'd, there is no peculiar or Specifick Remedy discover'd, that by its contrary and repugnant Nature, can immediately, or in a short Space, conquer and destroy the noxious Principles of the Disease, its Force may be abated by diluting it with a large Portion of Liquor, in the same way, that an immoderate Degree of Choler in the Body, is often weaken'd and carried off by drinking frequent Draughts of Chicken-Broth, or Mineral-Waters; and thus the Spirit of Nitre or Vitriol, being mingled with a great Quantity of Spring-water lose their Force by the Diffusion and Dissipation of their Parts, and are scarce perceiv'd by the Taste.

WHEN excessive Bleeding at the Nose happens, or when Blood issues with the Urine, or from the Fundament, or the Mouth, which proceeds from a high Solution of its Parts, the same Method should be observ'd, which has been already recommended in the worst Malignant Fevers, tho' this Symptom

tom generally shews the Disease to be incurable.

WHEN a violent Looseness happens, and is not attended with Blood, Cordial Medicines accompanied with Astringent, and a small Quantity of Liquid Laudanum may be reasonably given ;

As for Example,

Take Conserve of red Roses, or Hips, half a Dram, of Snakeweed and Bole-Armoniack, each ten Grains ; of Saffron four Grains ; of Spirit of Vitriol five Drops ; of Liquid Laudanum six Drops ; make it a Bolus with Syrup of Lemons, to be taken every six Hours, and drink after a Draught of the above-mention'd Liquors.

ASTRINGENT Clysters may likewise be injected once or twice a Day, made of half a Pint of a strong Infusion of red Rose-leaves in Spring-water, adding to it of Venice-Treacle three Drams.

IN Case of difficult or short Breathing, the use of Blisters is justly recommended, to enliven and animate the Spirits, that are so low and oppress'd, as not to be able to contract and enlarge the Chest, for the reception or expulsion of the Air. I have before discours'd at large of the Use of Blisters or Vesicatories in the Method of Cure

in Malignant Fevers, to which, for avoiding Repetition, I refer the Reader ; and by their Parity of Reason, we may likewise extend their Usefulness to all curable Cases of the Plague.

WHEN the Pestilential Poison makes its first Impression on the Animal Spirits and the Mass of Blood, where it produces great Putrifaction, the nobler active Parts of it attempt to concoct and subdue the putrid Matter, that it may at Length discharge it and heal its Breaches ; but if they are unequal to the Task, and cannot accomplish this first wholesome Intention, at least but in a very imperfect Degree, Nature then to deliver it self, and dislodge the Enemy, expels it to the Surface of the Body, where being unapt to perspire, they lye caught and entangled in the Glands, where by Accession of fresh Matter, they appear in Swellings called Buboës, or Carbuncles ; and if these Buboës, &c. are of a milder Nature, either because the Matter was in Part digested in the Blood before, or from the lower Degree of Malignity in the Distemper, when the Pestilence, tho' violent and fierce at first, has much spent its Fury, and its destructive Nature is abated ; in such Cases the malignant Swellings may be ripened, or brought to Suppuration, attended with a Quantity of digested Matter, and a Plaster of Galbanum, mix'd with a third or fourth Part of Euphorbium, seems as proper as any Thing for that

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Purpose: But if this Application be ineffectual, then Care must be taken to open the Swelling, and apply to it such digestive Medicines, as are most proper, and effectual; but the Management of these, and other pestilential Tumours, should be committed to the Care of a skilful Surgeon.

I have above observ'd, that I have often seen malignant Fevers of the highest Nature, as well as some sorts of the Smallpox as fatal as the Plague, tho' without its high Degree of Contagion, that denominates and distinguishes that dreadful Disease, and having been long conversant with those Distempers, not less destructive than the Pestilence, and attended with the same Symptoms, I thought that with great Reason I might extend the Method and Medicines us'd in those Cases to the Cure of the Plague, when it is not in its Nature incurable: I began therefore with malignant Fevers in which I have been long vers'd, that I might borrow just Lights from my Observation of their Nature, and the Method of curing them to discover the right Way of treating a Patient in the Plague.

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